

Mount Sinai Hospital's Guide to the Respiratory Pathogens Panel by PCR

What is the test?

A culture-free, multiplex nucleic acid amplification test for 17 viruses and 3 bacterial species.

How is it collected?

- A nasopharyngeal swab is recommended. Please see guide on [Nasopharyngeal Specimen Collection](#).
- Similar to Influenza/RSV PCR, patients will be placed on droplet precautions when this test is ordered (pediatric patients < 6 years old should be placed on both droplet and contact precautions).

When to send the test?

- Please send this test in patients with symptoms of a respiratory illness **ONLY AFTER** influenza/RSV PCR has been sent and if the results will affect clinical management (e.g., deferral of procedures or disposition) as the treatment is often supportive.
- Testing is **not** recommended if there is high suspicion of bacterial pneumonia unless there is suspicion of acute Mycoplasma infection or pertussis. In the setting of suspicion of *B. pertussis* or *B. parapertussis*, please send *B. pertussis*/*B. parapertussis* PCR.
- For pertussis, droplet precautions is required and there is a 2-4-day turn-around for the test results. Treatment should be empirically initiated if pertussis is considered in the diagnosis (please see treatment guidelines below).
- If the test is positive for any pathogen, repeat testing is not recommended for test of cure.
- In the hospital setting, if there is a recrudescence of respiratory symptoms after clinical recovery testing can be considered after influenza/RSV PCR testing has been sent. Repeat respiratory viral panel requires approval by Infectious Diseases physicians.

Treatment Guidelines

Treatment for most respiratory viral infections is supportive, with the exception of influenza and certain patient populations with RSV and adenovirus.

Transmission-Based Precautions and Treatment Guidelines by Respiratory Pathogen

Pathogen Detected	Adult Precautions	Immunocompromised * Precautions	Pediatric Precautions	Duration	Duration for Immunocompromised	Treatment Recommendations
Adenovirus	Droplet and Contact	Droplet and Contact	Droplet and Contact	Duration of Illness	Duration of Hospitalization‡	Cidofovir in select patients (ID Consultation required)
Metapneumovirus	Contact†	Contact*	Contact†	Duration of Illness	Duration of Illness	Supportive Care
Influenza A/B	Droplet	Droplet	Droplet	7 days	Duration of Hospitalization‡	Please see Influenza Treatment Guidelines
Parainfluenza 1-4	Standard†	Contact*	Contact†	Duration of Illness	Duration of Hospitalization‡	Supportive Care
RSV	Standard†	Contact†	Contact†	Duration of Illness	Duration of Hospitalization‡	Please see Ribavirin Guidelines
Rhinovirus/ Enterovirus	Droplet	Droplet	Droplet +/- Contact Contact if copious secretions	Duration of Illness	Duration of Illness	Supportive Care
<i>Bordetella pertussis/parapertussis</i>	Droplet	Droplet	Droplet	5 Days of Treatment	5 Days of Treatment	1 st Line – Azithromycin Please consider discussion with ID.
<i>Chlamydomphila pneumoniae</i>	Standard	Standard	Standard	Not Applicable	Not Applicable	1 st Line - Azithromycin Alternatives – Levofloxacin, Doxycycline
<i>Mycoplasma pneumoniae</i>	Droplet	Droplet	Droplet	Duration of Illness	Duration of Illness	1 st Line - Azithromycin Alternatives - Levofloxacin, Doxycycline
Coronavirus	Standard	Standard	Standard	Not Applicable	Not Applicable	Supportive Care

* Immunocompromised refers to transplant recipients or those with hematologic malignancies (i.e., BMT and Solid Organ Transplant) and at the discretion of Infection Prevention

† Masks can be added as part of standard precautions

‡ Duration may be modified at the discretion of Infection Prevention