

RESPIRATORY PATHOGEN TESTING

Respiratory Tract Infections (RTI) represents one of the most common causes of outpatient visits in the US¹.

The severity of these infections ranges from the common cold and sore throat to life threatening influenza that can be especially deadly to high-risk groups¹. Even though appropriate antibiotics and antiviral medications are available in the U.S., most respiratory infections go unidentified or inappropriately treated with antibiotics¹. It is also often difficult to clinically differentiate viral and bacterial pathogens for some respiratory infections^[2-3]. RTIs are often unidentified, as different infections present in the clinic with similar symptoms, and several viruses may be in circulation at any given time³. Your patients and their families rely on you to determine the right medication for optimal health outcomes. However, finding the best treatment plan starts with proper testing and diagnosis.



NEXT's Respiratory Pathogen Panel (RPP) helps improve diagnosis and facilitates the best treatment plan for your patients with respiratory infections:

- Antiviral
- Antibiotic (based on target identified)
- Increased monitoring
- Supportive Care

Timely detection of viral and bacterial infections helps^[4-5]:

- Improve outcomes, saving time and money through shorter duration of illness and more efficacious treatments
- Significantly decrease the use of antibiotics
- Prevent secondary spread of infection
- In prescribing the appropriate antibiotic/antiviral for pathogen present

Studies show that rapid multiplex molecular diagnostics can help improve outcomes^[6-8]:

- RPP detects multiple (27) different viruses, virus subtypes and bacterial pathogens
- Rapid turnaround time of 24 hours
- Results delivered in one report
- Improved diagnostic sensitivity over culture methods

CDC Reports⁹: Antimicrobials are frequently prescribed in setting of unknown pathogens:

- Antimicrobial Stewardship ensures the antibiotics that work today continue to work tomorrow.
- Appropriate antibiotic use is an essential part of patient safety.

NEXT's RPP Includes most common and important viral and bacterial pathogens.

| VIRUS | BACTERIA |
|-------------------------------|---------------------------------|
| Influenza A | <i>Chlamydia pneumoniae</i> |
| __Influenza A H1 | <i>Mycoplasma pneumoniae</i> |
| __Influenza A H3 | <i>Bordetella</i> |
| Influenza A 2009 H1N1 | __ <i>Bordetella holmesii</i> |
| Influenza B | __ <i>Bordetella pertussis</i> |
| Respiratory Syncytial Virus A | <i>Legionella pneumophila</i> |
| Respiratory Syncytial Virus B | <i>Moraxella catarrhalis</i> |
| Parainfluenza Virus (PIV) 1 | <i>Streptococcus pneumoniae</i> |
| Parainfluenza Virus (PIV) 2 | <i>Streptococcus pyogenes</i> |
| Parainfluenza Virus (PIV) 3 | |
| Human Metapneumovirus | |
| Human Rhinovirus (HRV) | |
| Adenovirus | |
| Coronavirus | |
| __Coronavirus NL63 | |
| __Coronavirus OC43 | |
| __Coronavirus HKU-1 | |
| __Coronavirus 229E | |

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P: 844-812-7415
F: 804-977-6630
clientservices@nextmolecular.com
www.nextmolecular.com