



Molecular Diagnostics (PCR) –for Respiratory Infections (RPP)

In the past, when only traditional cultures were available to detect infection-causing fungi and bacteria, doctors had to wait for days and sometimes weeks before they could begin treating infections. With the advent of molecular diagnostics, however, this is no longer the case. We can test samples around the US – except for New York.

ASAP Lab’s tests provide doctors with information about the nature of the pathogen(s) causing the infection(s) being dealt with. As a high-complexity CLIA accredited laboratory, we assist clinicians and health care providers to quickly identify the pathogens and underlying causes of disease.

PCR can detect more bacteria than traditional cultures, and can detect bacteria that cultures miss. 582 patients sent Urine samples. PCR detected 22 out of 24 (92%) organisms whereas a culture analysis only detected 15 (62%).

We offer a comprehensive panel detecting viral, bacterial, and fungal pathogens causing respiratory illness by molecular technique. Since Coronavirus can have a **14-day** incubation period, fast and accurate results are imperative for containment.

Culture VS PCR molecular technique:

- 1. Turnaround time:** Cultures are slow. It usually takes about 2 to 3 days to obtain culture and antimicrobial sensitivity results. Results within **24 to 48 hours**.
- 2. Detection of bacteria:** PCR was able to detect 22 out of the 24 targeted organisms while traditional culture was able to detect only 15 in a recent study.
- 3. Contribution to antibiotic resistance:** Antibiotic resistance is a public health threat—one which many bodies and initiatives are actively combating. With PCR tests, results are available quickly—preventing further spread of infectious diseases. Additionally, molecular tests like PCR identify resistance markers, allowing physicians to avoid the prescription of ineffective antibiotics to patients.

Antibiotic resistance, which most commonly occurs due to misuse and overuse of certain antibiotics that then cause bacteria to alter as a response to the medication is becoming a major public health and safety issue. In fact, according to the Centers for Disease Control and Prevention (CDC) more than two million people are ill every year with an antibiotic-resistant infection, and from those ill an estimated [23,000 die as a result](#).

| Respiratory Panel |
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| Viral Targets |
| Influenza Panel |
| Influenza (A, H1-2009, H3) |
| Influenza B |
| Influenza C |
| Parainfluenza (1, 2, 3, 4) |
| Common Cold Panel |
| Adenovirus |
| Human Bocavirus |
| Human Coronavirus |
| (COVID-19/HKU1/NL63/229E/OC93) |
| Human Enterovirus |
| Human Rhinovirus |
| Human Parechovirus |
| Respiratory Syncytial Virus A/B |
| Human Metapneumovirus A/B |
| SARS (Severe Acute Resp Syndrome) |
| MERS (Middle East Resp Syndrome) |
| Bacterial Targets |
| Pneumonia Panel |
| Mycoplasma pneumoniae |
| Chlamydia pneumoniae |
| Streptococcus pneumoniae |
| Klebsiella pneumoniae |
| Haemophilus influenzae/Type B |
| Legionella pneumophila/longbeachae |
| Moraxella catarrhalis |
| Coxiella burnetii |
| Whooping Cough |
| Bordetella pertusis |
| Bordetella parapertusis |
| Bordetella holmesii |
| MRSA |
| S.aureus |
| MRSA |
| Fungal Targets |
| <i>Pneumocystis Jirovecii</i> |

SYMPTOMS OF COVID-19 INCLUDE:



COUGH



FEVER



SHORTNESS OF BREATH

In rare cases, it can lead to severe respiratory problems, kidney failure or death

Using the Polymerase Chain Reaction (PCR) molecular technique, ASAP Lab provides a comprehensive panel for different types of physicians.

- ❖ Respiratory (Ear/Nose/Throat Infections)
- ❖ Urologists (UTI / STI)
- ❖ Podiatrists and Wound Care Specialists
- ❖ Nail Infections
- ❖ Gastroenterology
- ❖ Women’s Health

We know that better patient outcomes are achieved through fast, accurate, and reliable laboratory results.