

Clinical Background

Acute respiratory tract infections are one of the leading causes of childhood morbidity and mortality worldwide, and it has been estimated that globally, respiratory infections are responsible for about 2 million deaths in children between 0 and 5 years of age. Approximately 80% of these respiratory infection cases are caused by viral pathogens such as influenza A and B, respiratory syncytial virus (RSV) A and B, parainfluenza virus types 1–3, adenovirus, rhinovirus, human metapneumovirus (hMPV), and others (Mahony, 2008). The non-specific clinical presentation of respiratory infections poses a considerable challenge to the differential diagnosis of these pathogens. Early and accurate diagnosis of the causative pathogens in respiratory infections is essential to administer appropriate antiviral or antibacterial therapy, initiate effective infection control measures, and reduce the length of hospital stay.

Tenchnology

Absolute Genomics utilizes Real-Time PCR for pathogen identification and detection of antibiotic resistance. Real-time PCR tests use specific sections of DNA unique to a target to detect if that target is present in a sample. This technique has many advantages over culture detection or diagnostic techniques including its superior specificity, it can differentiate between pathogenic and non-pathogenic strains and does not rely on subjective analysis. This advanced technology allows Absolute Genomics to report both pathogen identification and antibiotic resistance testing results with accuracy.

Clinical Advantages

- Prevents Delays in Diagnosis & Treatment
- Decreases Patient Risks
- Decreases Healthcare Costs
- Decreases Additional Unnecessary Diagnostic Testing
- Decrease in Turn-Around Times



12 Bacteria

- Bordetella pertussis
- Chlamydia pneumoniae
- Enterobacter aerogenes
- Enterobacter cloacae
- Escherichia coli
- Haemophilus influenzae
- Klebsiella pneumoniae
- Moraxella catarrhalis
- Mycoplasma pneumoniae
- Staphylococcus aureus
- Streptococcus pneumoniae
- Streptococcus pyogenes

22 Viruses

- Adenovirus
- Coronavirus 229E
- Coronavirus HKU1
- Coronavirus NL63
- Coronavirus OC43
- Enterovirus D68
- Herpes Simplex Virus 1
- Herpes Simplex Virus 2
- Human Herpes Virus 3 (Zoster)
- Human Herpes Virus 6
- Human Metapneumovirus
- Influenza A
- Influenza A H1
- Influenza A H3
- Influenza B
- Parainfluenza 1
- Parainfluenza 2
- Parainfluenza 3
- Parainfluenza 4
- Respiratory Syncytial Virus A
- Respiratory Syncytial Virus B
- Rhinovirus

3 Fungi

- Candida albicans
- Candida glabrata
- Candida parapsilosis