Beth Israel Lahey Health
Beth Israel Deaconess Medical Center

Test Name:	**Rapid Respiratory Pathogen Panel**
Brief Description:	**Rapid detection of** Adenovirus, Coronavirus (**NOT** COVID-19), Human Metapneumovirus, Human Rhinovirus/Enterovirus, Influenza A, Influenza B, Parainfluenza virus (1-4), RSV A, RSV B, *Chlamydia pneumoniae*, *Mycoplasma pneumoniae* by multiplex PCR
Specimen:	Nasopharyngeal Flocked Swab, placed in Universal Transport Media (UTM)
Specimen Amount:	Entire collection/1 swab
Container:	Flocked swab/UTM
Collection Guidelines:	Per Instructions for respiratory viral panel sample collection. **Note: it is very important to rotate the flocked swab several times in the posterior nasopharynx for adequate respiratory epithelial cell collection required for viral detection.** Place swab immediately into UTM tube and submit for testing. Keep specimens on ice for transport. **Note: specimens for hospitalized patients and those suspected of COVID-19 should be collected by Respiratory Care personnel.**
Set Up Times:	24 hours, 7 days a week. Multiple times per day/shift.
STAT TAT:	N/A
Routine TAT:	Within 24 hours of specimen receipt on East Campus.
Sent to Outside Lab:	*NO*
View Results In:	Chemistry System
Units:	N/A
Reference Range:	Negative (Not Detected) for ALL targets.
Alert Value:	N/A
Comments/Medical Significance:	**View Results:** Respiratory Pathogen Panel results reported in "Other Body Fluid" Tab, listed under "Respiratory Pathogen Panel" subheading. Respiratory Pathogen Panel results will NOT be found under the “Reports” Tab in OMR. **Medical Significance:** The ePlex Respiratory Pathogen Panel is a multiplex PCR method for detection of Adenovirus, common Coronaviruses (serotypes HKU1, NL63, 229E, OC43, i.e., NOT COVID-19 or other highly pathogenic coronaviruses), Human Metapneumovirus, Human Rhinovirus/Enterovirus, Influenza A (subtypes H1, H1-2009, H3), Influenza B, Parainfluenza virus (serotypes 1-4), Respiratory

Syncytial Virus (RSV A and RSV B), *Chlamydia pneumoniae*, and *Mycoplasma pneumoniae.* The ePlex Respiratory Pathogen Panel has outstanding positive and negative predictive values for detection of the pathogens included in the assay. Results are intended to aid in the diagnosis of respiratory illnesses and should be used in conjunction with other clinical and epidemiological findings. Re-testing is generally not recommended; however, specimens collected too early and/or too late in the clinical course of the illness may not yield the causative organism. If applipplicable, negative results should be considered in the context of a patient's clinical course and treatment history.

Respiratory infections are common and present in healthy, immunocompetent hosts generally a self-limited illnesses. While viruses account for a significant percentage of respiratory infections, bacteria may also be associated with respiratory infections. Although respiratory illnesses are frequently mild, viruses may cause significant morbidity and mortality in immunocompromised hosts (eg, transplant recipients, patients with underlying malignancies). Influenza viruses (type A and B) and RSV are two very common causes of viral respiratory illnesses, with peak incidence during the winter and spring months in the Northern hemisphere. Both viruses can cause a clinically indistinguishable syndrome, characterized by fever, cough, headache, and general malaise. Human Rhinovirus/Enterovirus and common Coronavirus (serotypes HKU1, NL63, 229E, OC43) are the causative agents of the common cold; clinical symptoms include runny nose, sore throat, and malaise. Infections due to these viruses are extremely common, because of the large number of serotypes of these viruses. This assay does NOT detect the COVID-19 coronavirus (SARS-CoV-2), or other highly pathogenic coronaviruses, such as MERS-CoV and SARS-CoV!

Human Metapneumovirus also causes respiratory illness in both children and adults. Parainfluenza viruses and adenovirus are also common causes of viral infections, especially in young children. Parainfluenza viruses are most common during the spring, summer, and fall months. This assay also detects two causes of bacterial respiratory infections, *Mycoplasma pneumoniae* and *Chlamydia pneumoniae*. *M. pneumoniae* can cause upper respiratory tract infections, pharyngitis, tracheobronchitis, and pneumonia. *Chlamydia pneumoniae* is a rare cause of pneumonia.

Cautions:
The detection of microbial DNA or RNA is dependent upon proper sample collection, handling, transportation, storage, and preparation. False-negative results could potentially occur with viral strain that have sequence variability or genetic rearrangements in the target regions of the assays.

This test is NOT recommended as a "test of cure".

Repeat testing should not be performed on patient samples collected less than 7 days apart.

Reflex?	***Panel? NO***	***CPT4 code(s)*** 87633, 87486, 87581
Director Responsible:	Stefan Riedel, MD, PhD, D(ABMM)	