

Clinical Policy: Polymerase Chain Reaction Respiratory Viral Panel Testing

Reference Number: LA.CP.MP.181

Date of Last Revision: 5/22

Coding Implications

Revision Log

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

Description

Medical necessity criteria for multiplex respiratory polymerase chain reaction (PCR) testing.

Note: For PCR testing for COVID-19, refer to LA.CP.MP.183 2019-Novel Coronavirus Testing.

Policy/Criteria

- I. It is the policy of Louisiana Healthcare Connections that respiratory viral panels (RVPs) testing for five pathogens or less are considered **medically necessary** when meeting one of the following:
 - A. Performed in the outpatient setting, will influence the plan of care, and any of the following:
 1. To assess for infection by other pathogens when COVID-19 is suspected and a COVID-19-specific test result will not be available soon enough to influence the plan of care;
 2. The member is immunocompromised;
 3. The test is ordered by an infectious disease specialist, or an infectious disease specialist is not available;
 - B. Performed in a healthcare setting that cares for critically ill patients, such as the emergency department or inpatient hospital, including those in observation status.
- II. It is the policy of Louisiana Healthcare Connections that respiratory viral panels (RVPs) testing for six pathogens or more are considered **medically necessary** in a healthcare setting that cares for critically ill patients, such as the emergency department or inpatient hospital, including those in observation status.
- III. It is the policy of Louisiana Healthcare Connections that RVPs are considered **not medically necessary** for all other indications.

Background

Polymerase chain reaction (PCR) respiratory viral panels (RVP) may detect the RNA or DNA of multiple types of respiratory viruses as a single test, often through a nasal, nasopharyngeal, or oropharyngeal swab. Viral pathogens are the most common cause of respiratory tract infections. PCR testing is effective for confirming respiratory viral infections with very high sensitivity and specificity. Rhinovirus, parainfluenza virus, coronavirus, adenovirus, respiratory syncytial virus, Coxsackie virus, human metapneumovirus, and influenza virus account for most cases of viral respiratory infections. Immunocompromised patients can develop severe lower respiratory tract infections from common respiratory viral pathogens that otherwise cause mild upper respiratory tract infections in healthy patients.⁹

PCR testing is generally effective for confirming respiratory viral infections with very high sensitivity and specificity.^{7,13} Respiratory viral infections often have nonspecific clinical presentations and, therefore, accurate and timely identification through PCR testing has the potential to optimize antiviral use when appropriate, decrease the spread of any viral infection,

and to reduce the number of patients being treated with antibiotics unnecessarily.^{8,10-12,15} Multiplex PCR testing can detect a variety of respiratory viruses depending on the type and brand of testing being used.¹² However, the diagnostic role and importance of these multi-pathogen panels in identifying specific viruses in the setting of a respiratory infection is quite limited because the care and management of the individual patient is rarely altered based upon the pathogen identified.¹⁴

Infectious Disease Society of America (IDSA)

The IDSA recommends that “clinicians should use multiplex RT-PCR assays targeting a panel of respiratory pathogens, including influenza viruses, in hospitalized immunocompromised patients.” Further, “clinicians can consider using multiplex RT-PCR assays targeting a panel of respiratory pathogens, including influenza viruses, in hospitalized patients who are not immunocompromised if it might influence care (e.g., aid in cohorting decisions, reduce testing, or decrease antibiotic use).”

Coding Implications

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Table 1: CPT codes that support medical necessity in any place of service

CPT Codes®	Description
87631	Infectious agent detection by nucleic acid (DNA or RNA); respiratory virus (e.g., adenovirus, influenza virus, coronavirus, metapneumovirus, parainfluenza virus, respiratory syncytial virus, rhinovirus), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 3-5 targets.

Table 2: CPT codes that support medical necessity when billed with place of service codes in table 3

CPT Codes®	Description
0098U	Respiratory pathogen, multiplex reverse transcription and multiplex amplified probe technique, multiple types or subtypes, 14 targets (adenovirus, coronavirus, human metapneumovirus, influenza A, influenza A subtype H1, influenza A subtype H3, influenza A subtype H1-2009, influenza B, parainfluenza virus, human rhinovirus/enterovirus, respiratory syncytial virus, Bordetella pertussis, Chlamydophila pneumoniae, Mycoplasma pneumoniae)

CPT Codes®	Description
0099U	Respiratory pathogen, multiplex reverse transcription and multiplex amplified probe technique, multiple types or subtypes, 20 targets (adenovirus, coronavirus 229E, coronavirus HKU1, coronavirus, coronavirus OC43, human metapneumovirus, influenza A, influenza A subtype, influenza A subtype H3, influenza A subtype H1-2009, influenza, parainfluenza virus, parainfluenza virus 2, parainfluenza virus 3, parainfluenza virus 4, human rhinovirus/enterovirus, respiratory syncytial virus, Bordetella pertussis, Chlamydia pneumoniae, Mycoplasma pneumoniae)
0100U	Respiratory pathogen, multiplex reverse transcription and multiplex amplified probe technique, multiple types or subtypes, 21 targets (adenovirus, coronavirus 229E, coronavirus HKU1, coronavirus NL63, coronavirus OC43, human metapneumovirus, human rhinovirus/enterovirus, influenza A, including subtypes H1, H1-2009, and H3, influenza B, parainfluenza virus 1, parainfluenza virus 2, parainfluenza virus 3, parainfluenza virus 4, respiratory syncytial virus, Bordetella parapertussis [IS1001], Bordetella pertussis [ptxP], Chlamydia pneumoniae, Mycoplasma pneumoniae)
0115U	Respiratory infectious agent detection by nucleic acid (DNA and RNA), 18 viral types and subtypes and 2 bacterial targets, amplified probe technique, including multiplex reverse transcription for RNA targets, each analyte reported as detected or not detected
87632	Infectious agent detection by nucleic acid (DNA or RNA); respiratory virus (eg, adenovirus, influenza virus, coronavirus, metapneumovirus, parainfluenza virus, respiratory syncytial virus, rhinovirus), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 6-11 targets
87633	Infectious agent detection by nucleic acid (DNA or RNA); respiratory virus (eg, adenovirus, influenza virus, coronavirus, metapneumovirus, parainfluenza virus, respiratory syncytial virus, rhinovirus), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 12-25 targets

Table 3: Place of service codes supporting medical necessity for codes in table 2

Place of Service Code	Place of Service Name	Place of Service Description
21	Inpatient Hospital	A facility other than psychiatric which primarily provides diagnostic, therapeutic (both surgical and nonsurgical), and rehabilitation services by, or under, the supervision of physicians to patients admitted for a variety of medical conditions.
22*	Outpatient Hospital (Observation)	A portion of a hospital which provides diagnostic, therapeutic (both surgical and nonsurgical), and rehabilitation services to sick or injured persons who do not require hospitalization or institutionalization.

Place of Service Code	Place of Service Name	Place of Service Description
21	Inpatient Hospital	A facility other than psychiatric which primarily provides diagnostic, therapeutic (both surgical and nonsurgical), and rehabilitation services by, or under, the supervision of physicians to patients admitted for a variety of medical conditions.
23	Emergency Room – Hospital	A portion of a hospital where emergency diagnosis and treatment of illness or injury is provided.

**NOTE: PCR testing in an outpatient place of service is reimbursable only when performed as part of the diagnostic work-up for a patient admitted for Observation.*

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Converted corporate to local policy.	08/15/2020	
Annual review. References reviewed and updated. Updated background with no clinical significance. Specialist reviewed. Added and may not support medical necessity to Coding Implications section	5/22	

References

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Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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