# Clinical Policy: Polymerase Chain Reaction Respiratory Viral Panel Testing

Reference Number: CP.MP.181 Coding Implications
Date of Last Revision: 08/21 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 CP.CPC.03 Preventive Health and Clinical Practice Guideline Policy*

## Policy/Criteria

**I.** It is the policy of Centene Corporation® 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. The member/enrollee is immunocompromised;
      2. 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 Centene Corporation 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 Centene Corporation 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.

Multiplex PCR testing can detect numerous respiratory viruses; that number varies with the type and brand of testing being performed. 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 patient is not altered based upon the pathogen identified, if any. For example, the child with a URI, cough, and wheezing who might be positive for RSV would not be managed any differently than the child with parainfluenza virus, adenovirus, rhinovirus, human metapneumovirus, enterovirus, Coxsackie virus, or coronavirus.

*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**
This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

**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 |
|---|---|
| 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. |
| 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 |
|---|---|---|
| Policy developed | 12/19 | 01/20 |
| Added a note to refer to CP.MP.183 for 2019-novel coronavirus testing. | 03/20 | |
| Split medical necessity statements to address panels of 5 pathogens or less and panels of 6 or more separately. Added criteria for panels of 5 or fewer pathogens in the outpatient setting: specified that the test will influence the plan of care, and added the following as indications: testing for other pathogens when COVID-19 suspected and COVID-19 testing is not available soon enough to influence the plan of care, when immunocompromised, or when ordered by an ID or when an ID is not available. Moved codes 87632 and 87633 to a table of medically necessary codes when billed with POS codes in Table 3. Added codes 0098U, 0099U, 0100U, and 0115U as medically necessary when billed with POS codes in Table 3. References reviewed and updated. | 08/20 | 08/20 |
| References reviewed, updated and reformatted. CPT codes 0098U, 0099U and 0100U deleted 04/21. Changed "review date" in the header to "date of last revision" and "date" in the revision log header to "revision date." Specialist review. | 07/21 | |
| Removed criteria specific to Covid 19 testing in I.A. | 08/21 | 08/21 |

**References**

1. Hill AT, Gold PM, El Solh AA, et al. Adult Outpatients with Acute Cough Due to Suspected Pneumonia or Influenza: CHEST Guideline and Expert Panel Report. *Chest.* 2019;155(1):155-167. doi:10.1016/j.chest.2018.09.016
2. Local Coverage Determination. MolDX: Multiplex Nucleic Acid Amplified Tests for

Respiratory Viral Panels (L37315). Centers for Medicare and Medicaid Services Web site. http://www.cms.hhs.gov/mcd/search.asp. Published May 13, 2019. (revised 10/01/2021) Accessed June 9, 2021.
3. Molecular Test Assessment: FilmArray Respiratory Panel (BioFire Diagnostics LLC) Hayes website. www.hayesinc.com. Published May 21, 2020. Accessed June 10, 2021.
4. Molecular Test Assessment: FilmArray Respiratory Panel 2 (BioFire Diagnostics LLC) Hayes. www.hayesinc.com. Published March 10, 2021. (annual review February 24, 2021). Accessed June 16, 2021.
5. Uyeki TM, Bernstein HH, Bradley JS, et al. Clinical Practice Guidelines by the Infectious Diseases Society of America: 2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza. *Clin Inf Dis* 2019;68(6):895-902. doi:10.1093/cid/ciy874
6. Ralston SL, Lieberthal AS, Meissner HC, et al. Clinical practice guideline: the diagnosis, management, and prevention of bronchiolitis. [published correction appears in Pediatrics. 2015 Oct;136(4):782]. *Pediatrics* 2014; 134(5):e1474-e1502. doi:10.1542/peds.2014-2742
7. Esposito S, Mencacci A, Cenci E, Camilloni B, Silvestri E, Principi N. Multiplex Platforms for the Identification of Respiratory Pathogens: Are They Useful in Pediatric Clinical Practice? Front Cell Infect Microbiol. 2019 Jun 4;9:196. doi: 10.3389/fcimb.2019.00196. PMID: 31275863; PMCID: PMC6593267.
8. Busson L, Bartiaux M, Brahim S, et al. Contribution of the FilmArray Respiratory Panel in the management of adult and pediatric patients attending the emergency room during 2015–2016 influenza epidemics: An interventional study. *Int J Infect Dis.* 2019 Jun;83:32-39. doi: 10.1016/j.ijid.2019.03.027
9. Echavarria M, Marcone DN, Querci M, et al. Clinical impact of rapid molecular detection of respiratory pathogens in patients with acute respiratory infection. *J Clin Virol*. 2018 Nov;108:90-95. doi: 10.1016/j.jcv.2018.09.009
10. Ramirez JA, Musher DM, Evans SE, et al. Treatment of Community-Acquired Pneumonia in Immunocompromised Adults: A Consensus Statement Regarding Initial Strategies. *Chest.* 2020; 158(5):1896-1911.doi: 10.1016/j.chest.2020.05.598
11. Sberna G, Amendola A, Valli MB, et al. Trend of respiratory pathogens during the COVID-19 epidemic. *J Clin Virol*. 2020;129:104470. doi:10.1016/j.jcv.2020.104470
12. Lai CC, Wang CY, Hsueh PR. Co-infections among patients with COVID-19: The need for combination therapy with non-anti-SARS-CoV-2 agents? *J Microbiol Immunol Infect*. 2020; 53(4):505-512. doi:10.1016/j.jmii.2020.05.013

**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. The Health Plan 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. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

# CLINICAL POLICY
## Polymerase chain reaction respiratory viral panel testing

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members/enrollees and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members/enrollees and their representatives agree to be bound by such terms and conditions by providing services to members/enrollees and/or submitting claims for payment for such services.

**Note: For Medicaid members/enrollees**, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

**Note: For Medicare members/enrollees,** to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.