

Clinical Policy: Polymerase Chain Reaction Respiratory Viral Panel Testing
Reference Number: MC.CP.MP.181

Date of Last Revision: 03/25

Coding Implications
Revision Log

See <u>Important Reminder</u> at the end of this policy for important regulatory and legal information.

Description

This policy outlines the medical necessity criteria for multiplex respiratory polymerase chain reaction (PCR) testing.

The policy criteria below is sourced from Local Coverage Determination (LCD) Molecular Syndromic Panels for Infectious Disease Pathogen Identification Testing (L38988) and supported by the Infectious Disease Society of America (IDSA).^{1,7}

Benefits of PCR testing include rapid turnaround time for test results, increased test sensitivity, low cost, and ease of use. Disadvantages of PCR testing include higher risk of contamination, inability to differentiate between live and dead organisms, higher detection error rates due to increased test sensitivity, and limitations on identifying new DNA variants or rare sequences.²⁰

For those who are in inpatient or critical care settings or at risk for severe consequences from respiratory illness due to immunocompromise, the benefits of expanded PCR respiratory viral panels outweigh the risks since identifying the viral pathogen is more likely to affect the plan of care and suggest strategies for management of the illness. For those who do not meet criteria for expanded PCR testing, the course of treatment would not be changed by identifying the specific infectious organism, thereby placing the member at risk for delayed treatment due to the wait for test results. Panels of three to five targets do not require an inpatient setting or immunocompromised status in the patient as the panels identify a few common viruses for which there is outpatient treatment.

Note: For criteria applicable to non-Medicare plans, please see CP.MP.181 Polymerase Chain Reaction Respiratory Viral Panel Testing.

Policy/Criteria

- I. It is the policy of Medicare plans affiliated with Centene Corporation[®] that respiratory viral panels (RVPs) testing for five pathogens or fewer are considered **medically necessary** when meeting all of the following¹⁻⁸:
 - A. The member/enrollee has one of the following clinical indications for infectious disease testing:
 - 1. The member/enrollee is immunocompetent, and the clinical indication includes a presumption of active infection or infection-associated complications (which may include exacerbation of underlying disease) that require the identification of a causative organism for appropriate management.
 - 2. The member/enrollee is immunocompromised (i.e., those with weakened immune systems including those with human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome (AIDS), those who are taking immunosuppressive medications (i.e., chemotherapy, biologics, transplant-related immunosuppressive drugs, high-dose systemic corticosteroids) and those with inherited diseases that





affect the immune system (i.e., congenital immunoglobulin deficiencies). Note: Atypical clinical presentations of disease are considered appropriate indications for testing. In this population, testing may be performed once as part of a pre-transplant evaluation, regardless of the presence of symptoms;

- B. The results of testing will impact clinical management in a manner already demonstrated in the peer-reviewed published literature to improve outcomes;
- C. Testing is performed according to the intended use of the test in the intended population for which the test was developed and validated;
- D. Targeted testing is not appropriate (i.e., will not provide sufficient information for the appropriate clinical management);
- E. The panel performed includes at least the minimum pathogens required for clinical decision making for its intended use that can be reasonably detected by the test;
- F. The registered test demonstrates equivalent or superior test performance characteristics analytical validity and clinical validity to established standard-of-care methods (i.e., culture, pathogen-specific PCR) for the majority of targets included on the panel;
- G. Documentation of the following is clearly stated in the medical record:
 - 1. Specific clinical indications for testing (i.e., clinical suspicion of a pathogen as the cause of the medical condition);
 - 2. Specific reasons for performing panel testing;
 - 3. Provider type/specialty and place of service.
- II. It is the policy of Medicare plans affiliated with Centene Corporation that RVPs testing for six pathogens or more are considered **medically necessary** when meeting the following:
 - A. The criteria in section I are met, and any of the following¹:
 - 1. Performed in a healthcare setting that cares for critically ill individuals, such as the emergency department or inpatient hospital, and includes those in observation status;
 - 2. Member/enrollee is immunocompromised, as defined in section I.A.2.;
 - 3. Member/enrollee is immunocompetent and both of the following:
 - a. A severe and established underlying respiratory pathology is present (i.e., severe asthma, chronic obstructive pulmonary disease (COPD), cystic fibrosis, pulmonary fibrosis, radiation therapy to the lung);
 - b. Treatment with antibiotics may be indicated according to established guidelines. 18-19

Background

Polymerase chain reaction (PCR) respiratory viral panels (RVPs) 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. Rhinovirus, parainfluenza virus, coronavirus, adenovirus, respiratory syncytial virus (RSV), 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.

PCR testing is generally effective for confirming respiratory viral infections with very high sensitivity and specificity. ^{8,12} 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. ^{9,13-16} Multiplex



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PCR testing can detect a variety of respiratory viruses depending on the type and brand of testing being used.²¹ 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.¹⁷

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)."^{7(p898)}

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 2024, 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, without diagnosis code requirements

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, or a diagnosis code in both table 4 and table 5.

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
0202U	Infectious disease (bacterial or viral respiratory tract infection), pathogen- specific nucleic acid (DNA or RNA), 22 targets including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), qualitative RT-PCR, nasopharyngeal swab, each pathogen reported as detected or not detected







CPT Codes®	Description
0223U	Infectious disease (bacterial or viral respiratory tract infection), pathogen- specific nucleic acid (DNA or RNA), 22 targets including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), qualitative RT-PCR, nasopharyngeal swab, each pathogen reported as detected or not detected
0225U	Infectious disease (bacterial or viral respiratory tract infection) pathogen- specific DNA and RNA, 21 targets, including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), 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 (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, 6-11 targets
87633	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, 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
19	Off Campus- Outpatient Hospital	A portion of an off-campus hospital provider-based department which provides diagnostic, therapeutic (both surgical and nonsurgical), and rehabilitation services to sick or injured persons who do not require hospitalization or institutionalization.
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	On Campus - 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.







Table 4: ICD-10 Diagnosis Codes that Support Medical Necessity for CPT Codes in Table 2 when Billed with a Diagnosis Code in Table 5

ICD-10-CM	Description	
Code	Description	
A37.00	Whooping cough due to Bordetella pertussis without pneumonia	
A37.01	Whooping cough due to Bordetella pertussis with pneumonia	
A37.10	Whooping cough due to Bordetella parapertussis without pneumonia	
A37.11	Whooping cough due to Bordetella parapertussis with pneumonia	
A37.80	Whooping cough due to other Bordetella species without pneumonia	
A37.81	Whooping cough due to other Bordetella species with pneumonia	
A37.90	Whooping cough, unspecified species without pneumonia	
A37.91	Whooping cough, unspecified species with pneumonia	
A41.81	Sepsis due to Enterococcus	
A41.89	Other specified sepsis	
A41.9	Sepsis, unspecified organism	
A48.1	Legionnaires' disease	
A48.2	Nonpneumonic Legionnaires' disease [Pontiac fever]	
B25.0	Cytomegaloviral pneumonitis	
B33.23	Viral pericarditis	
B33.24	Viral cardiomyopathy	
B59	Pneumocystosis	
B97.21	SARS-associated coronavirus as the cause of diseases classified elsewhere	
B97.29	Other coronavirus as the cause of diseases classified elsewhere	
J05.0	Acute obstructive laryngitis [croup]	
J06.9	Acute upper respiratory infection, unspecified	
J09.X1	Influenza due to identified novel influenza A virus with pneumonia	
J09.X2	Influenza due to identified novel influenza A virus with other respiratory	
	manifestations	
J09.X3	Influenza due to identified novel influenza A virus with gastrointestinal	
	manifestations	
J09.X9	Influenza due to identified novel influenza A virus with other	
	manifestations	
J10.01	Influenza due to other identified influenza virus with the same other	
	identified influenza virus pneumonia	
J10.08	Influenza due to other identified influenza virus with other specified	
	pneumonia	
J10.1	Influenza due to other identified influenza virus with other respiratory	
	manifestations	
J10.2	Influenza due to other identified influenza virus with gastrointestinal	
	manifestations	
J10.81	Influenza due to other identified influenza virus with encephalopathy	
J10.82	Influenza due to other identified influenza virus with myocarditis	
J10.83	Influenza due to other identified influenza virus with otitis media	
J10.89	Influenza due to other identified influenza virus with other manifestations	
J11.08	Influenza due to unidentified influenza virus with specified pneumonia	
J11.1	Influenza due to unidentified influenza virus with other respiratory	
	manifestations	



J11.2	Influenza due to unidentified influenza virus with gastrointestinal	
	manifestations	
J11.81	Influenza due to unidentified influenza virus with encephalopathy	
J11.82	Influenza due to unidentified influenza virus with myocarditis	
J11.83	Influenza due to unidentified influenza virus with otitis media	
J11.89	Influenza due to unidentified influenza virus with other manifestations	
J12.0	Adenoviral pneumonia	
J12.1	Respiratory syncytial virus pneumonia	
J12.2	Parainfluenza virus pneumonia	
J12.3	Human metapneumovirus pneumonia	
J12.81	Pneumonia due to SARS-associated coronavirus	
J12.82	Pneumonia due to coronavirus disease 2019	
J12.89	Other viral pneumonia	
J12.9	Viral pneumonia, unspecified	
J13	Pneumonia due to Streptococcus pneumoniae	
J15.0	Pneumonia due to Klebsiella pneumoniae	
J15.1	Pneumonia due to Pseudomonas	
J15.20	Pneumonia due to staphylococcus, unspecified	
J15.211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	
J15.212	Pneumonia due to Methicillin resistant Staphylococcus aureus	
J15.29	Pneumonia due to other staphylococcus	
J15.3	Pneumonia due to streptococcus, group B	
J15.4	Pneumonia due to other streptococci	
J15.61	Pneumonia due to Acinetobacter baumannii	
J15.69	Pneumonia due to other Gram-negative bacteria	
J15.7	Pneumonia due to Mycoplasma pneumoniae	
J15.8	Pneumonia due to other specified bacteria	
J15.9	Unspecified bacterial pneumonia	
J16.0	Chlamydial pneumonia	
J16.8	Pneumonia due to other specified infectious organisms	
J18.0	Bronchopneumonia, unspecified organism	
J18.1	Lobar pneumonia, unspecified organism	
J18.2	Hypostatic pneumonia, unspecified organism	
J18.8	Other pneumonia, unspecified organism	
J18.9	Pneumonia, unspecified organism	
J20.0	Acute bronchitis due to Mycoplasma pneumoniae	
J20.1	Acute bronchitis due to Hemophilus influenzae	
J20.2	Acute bronchitis due to streptococcus	
J20.3	Acute bronchitis due to coxsackievirus	
J20.4	Acute bronchitis due to parainfluenza virus	
J20.5	Acute bronchitis due to respiratory syncytial virus	
J20.6	Acute bronchitis due to rhinovirus	
J20.8	Acute bronchitis due to other specified organisms	
J20.9	Acute bronchitis, unspecified	
J21.9	Acute bronchiolitis, unspecified	



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J22	Unspecified acute lower respiratory infection		
J44.0	Chronic obstructive pulmonary disease with (acute) lower respiratory		
	infection		
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation		
J45.31	Mild persistent asthma with (acute) exacerbation		
J45.32	Mild persistent asthma with status asthmaticus		
J45.41	Moderate persistent asthma with (acute) exacerbation		
J45.42	Moderate persistent asthma with status asthmaticus		
J45.51	Severe persistent asthma with (acute) exacerbation		
J45.52	Severe persistent asthma with status asthmaticus		
J45.901	Unspecified asthma with (acute) exacerbation		
J45.902	Unspecified asthma with status asthmaticus		
J84.116	Cryptogenic organizing pneumonia		
J84.117	Desquamative interstitial pneumonia		
J84.2	Lymphoid interstitial pneumonia		
J85.0	Gangrene and necrosis of lung		
J85.1	Abscess of lung with pneumonia		
J85.2	Abscess of lung without pneumonia		
J85.3	Abscess of mediastinum		
R05.1	Acute cough		
R05.2	Subacute cough		
R05.3	Chronic cough		
R05.8	Other specified cough		
R06.02	Shortness of breath		
R06.03	Acute respiratory distress		
R06.2	Wheezing		
R50.9	Fever, unspecified		
R65.20	Severe sepsis without septic shock		
R65.21	Severe sepsis with septic shock		
R78.81	Bacteremia		
T86.33	Heart-lung transplant infection		
T86.812	Lung transplant infection		
Z03.818	Encounter for observation for suspected exposure to other biological		
	agents ruled out		
U07.1	COVID-19		

Table 5: ICD-10 Diagnosis Codes that Support Medical Necessity for CPT codes in Table 2 when Billed with a Diagnosis Code in Table 4

ICD-10-CM Code	Description
B20	Human immunodeficiency virus [HIV] disease
C46.0	Kaposi's sarcoma of skin
C46.1	Kaposi's sarcoma of soft tissue
C46.2	Kaposi's sarcoma of palate
C46.3	Kaposi's sarcoma of lymph nodes
C46.4	Kaposi's sarcoma of gastrointestinal sites



C46.50	Kaposi's sarcoma of unspecified lung	
C46.51	Kaposi's sarcoma of right lung	
C46.52	Kaposi's sarcoma of left lung	
C46.7	Kaposi's sarcoma of other sites	
D57.01	Hb-SS disease with acute chest syndrome	
D61.03	Fanconi anemia	
D61.09	Other constitutional aplastic anemia	
D61.1	Drug-induced aplastic anemia	
D61.2	Aplastic anemia due to other external agents	
D61.3	Idiopathic aplastic anemia	
D61.810	Antineoplastic chemotherapy induced pancytopenia	
D61.811	Other drug-induced pancytopenia	
D61.818	Other pancytopenia	
D61.82	Myelophthisis	
D61.89	Other specified aplastic anemias and other bone marrow failure syndromes	
D61.9	Aplastic anemia, unspecified	
D64.81	Anemia due to antineoplastic chemotherapy	
D64.89	Other specified anemias	
D70.0	Congenital agranulocytosis	
D70.1	Agranulocytosis secondary to cancer chemotherapy	
D70.2	Other drug-induced agranulocytosis	
D70.3	Neutropenia due to infection	
D70.4	Cyclic neutropenia	
D70.9	Neutropenia, unspecified	
D80.0	Hereditary hypogammaglobulinemia	
D80.1	Nonfamilial hypogammaglobulinemia	
D80.2	Selective deficiency of immunoglobulin A [IgA]	
D80.3	Selective deficiency of immunoglobulin G [IgG] subclasses	
D80.4	Selective deficiency of immunoglobulin M [IgM]	
D80.5	Immunodeficiency with increased immunoglobulin M [IgM]	
D80.6	Antibody deficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia	
D80.8	Other immunodeficiencies with predominantly antibody defects	
D80.9	Immunodeficiency with predominantly antibody defects, unspecified	
D81.0	Severe combined immunodeficiency [SCID] with reticular dysgenesis	
D81.1	Severe combined immunodeficiency [SCID] with low T- and B-cell numbers	
D81.2	Severe combined immunodeficiency [SCID] with low or normal B-cell numbers	
D81.30	Adenosine deaminase deficiency, unspecified	
D81.31	Severe combined immunodeficiency due to adenosine deaminase deficiency	
D81.32	Adenosine deaminase 2 deficiency	
D81.39	Other adenosine deaminase deficiency	
D81.4	Nezelof's syndrome	



D81.5	Purine nucleoside phosphorylase [PNP] deficiency		
D81.6	Major histocompatibility complex class I deficiency		
D81.7	Major histocompatibility complex class II deficiency		
D81.810	Biotinidase deficiency		
D81.818	Other biotin-dependent carboxylase deficiency		
D81.82	Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]		
D81.89	Other combined immunodeficiencies		
D81.9	Combined immunodeficiency, unspecified		
D82.0	Wiskott-Aldrich syndrome		
D82.1	Di George's syndrome		
D82.2	Immunodeficiency with short-limbed stature		
D82.3	Immunodeficiency following hereditary defective response to Epstein- Barr virus		
D82.4	Hyperimmunoglobulin E [IgE] syndrome		
D82.8	Immunodeficiency associated with other specified major defects		
D83.0	Common variable immunodeficiency with predominant abnormalities of B-cell numbers and function		
D83.1	Common variable immunodeficiency with predominant immunoregulatory T-cell disorders		
D83.2	Common variable immunodeficiency with autoantibodies to B- or T-cells		
D83.8	Other common variable immunodeficiencies		
D83.9	Common variable immunodeficiency, unspecified		
D84.0	Lymphocyte function antigen-1 [LFA-1] defect		
D84.1	Defects in the complement system		
D84.821	Immunodeficiency due to drugs		
D84.822	Immunodeficiency due to external causes		
D84.89	Other immunodeficiencies		
D84.9	Immunodeficiency, unspecified		
D89.0	Polyclonal hypergammaglobulinemia		
D89.1	Cryoglobulinemia		
D89.3	Immune reconstitution syndrome		
D89.41	Monoclonal mast cell activation syndrome		
D89.42	Idiopathic mast cell activation syndrome		
D89.43	Secondary mast cell activation		
D89.44	Hereditary alpha tryptasemia		
D89.49	Other mast cell activation disorder		
D89.810	Acute graft-versus-host disease		
D89.811	Chronic graft-versus-host disease		
D89.812	Acute on chronic graft-versus-host disease		
D89.813	Graft-versus-host disease, unspecified		
D89.82	Autoimmune lymphoproliferative syndrome [ALPS]		
D89.89	Other specified disorders involving the immune mechanism, not		
E00.42	elsewhere classified		
E08.43	elsewhere classified Diabetes mellitus due to underlying condition with diabetic autonomic (poly)neuropathy		



E11.43	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy	
E13.43	Other specified diabetes mellitus with diabetic autonomic	
	(poly)neuropathy	
E84.0	Cystic fibrosis with pulmonary manifestations	
J44.81	Bronchiolitis obliterans and bronchiolitis obliterans syndrome	
J44.89	Other specified chronic obstructive pulmonary disease	
J44.9	Chronic obstructive pulmonary disease, unspecified	
J45.991	Cough variant asthma	
J70.1	Chronic and other pulmonary manifestations due to radiation	
J84.01	Alveolar proteinosis	
J84.02	Pulmonary alveolar microlithiasis	
J84.03	Idiopathic pulmonary hemosiderosis	
J84.10	Pulmonary fibrosis, unspecified	
J84.112	Idiopathic pulmonary fibrosis	
J84.114	Acute interstitial pneumonitis	
J84.170	Interstitial lung disease with progressive fibrotic phenotype in diseases classified elsewhere	
J84.178	Other interstitial pulmonary diseases with fibrosis in diseases classified elsewhere	
J84.81	Lymphangioleiomyomatosis	
J84.82	Adult pulmonary Langerhans cell histiocytosis	
J84.89	Other specified interstitial pulmonary diseases	
O98.711	Human immunodeficiency virus [HIV] disease complicating pregnancy,	
050.711	first trimester	
O98.712	Human immunodeficiency virus [HIV] disease complicating pregnancy,	
	second trimester	
O98.713	Human immunodeficiency virus [HIV] disease complicating pregnancy,	
	third trimester	
T80.82XS	Complication of immune effector cellular therapy, sequela	
Z51.11	Encounter for antineoplastic chemotherapy	
Z92.850	Personal history of Chimeric Antigen Receptor T-cell therapy	
Z92.858	Personal history of other cellular therapy	
Z92.86	Personal history of gene therapy	
Z94.0	Kidney transplant status	
Z94.1	Heart transplant status	
Z94.2	Lung transplant status	
Z94.3	Heart and lungs transplant status	
Z94.4	Liver transplant status	
Z94.5	Skin transplant status	
Z94.6	Bone transplant status	
Z94.81	Bone marrow transplant status	
Z94.82	Intestine transplant status	
Z94.83	Pancreas transplant status	
Z94.84	Stem cells transplant status	
Z94.89	Other transplanted organ and tissue status	





Reviews, Revisions, and Approvals	Revision Date	Approval Date
D 1' 1 1 1 D ' 11 4 1 '1'4		Date
Policy developed. Reviewed by external specialist.	03/24	
Annual review. Description and background updated with no	03/25	03/25
clinical significance. Removed "Note: Atypical clinical		
presentations" from I.A.1. Minor rewording with no clinical		
significance to I.F. and I.G.3. Descriptions in Table 3 updated.		
Removed ICD-10 codes Z20.822 and Z20.828 from Table 4.		
Added ICD-10 code D61.03 to Table 5. Added "Reviewed by		
external specialist" to last year's revision note in revision log.		
References reviewed and updated.		

References

- Local coverage determination. Molecular Syndromic Panels for Infectious Disease Pathogen Identification Testing (L38988). Centers for Medicare and Medicaid Services Web site. http://www.cms.hhs.gov/mcd/search.asp. Published April 17, 2022 (revised January 30, 2025). Accessed February 10, 2025.
- Local coverage article. Billing and coding: MolDX: molecular syndromic panels for infectious disease pathogen identification testing (A58710). Centers for Medicare and Medicaid Services Web site. http://www.cms.hhs.gov/mcd/search.asp. Published April 17, 2022 (revised January 1, 2025). Accessed February 10, 2025.
- Local coverage article. Billing and coding: MolDX: molecular syndromic panels for infectious disease pathogen identification testing (A58720). Centers for Medicare and Medicaid Services Web site. http://www.cms.hhs.gov/mcd/search.asp. Published April 17, 2022 (revised January 1, 2025). Accessed February 10, 2025.
- Local coverage article. Billing and coding: MolDX: molecular syndromic panels for infectious disease pathogen identification testing (A58726). Centers for Medicare and Medicaid Services Web site. http://www.cms.hhs.gov/mcd/search.asp. Published April 17, 2022 (revised January 1, 2025). Accessed February 10, 2025.
- Local coverage article. Billing and coding: MolDX: molecular syndromic panels for infectious disease pathogen identification testing (A58747). Centers for Medicare and Medicaid Services Web site. http://www.cms.hhs.gov/mcd/search.asp. Published April 17, 2022 (revised December 5, 2024). Accessed February 10, 2025.
- Local coverage article. Billing and coding: MolDX: molecular syndromic panels for infectious disease pathogen identification testing (A58761). Centers for Medicare and Medicaid Services Web site. http://www.cms.hhs.gov/mcd/search.asp. Published April 17, 2022 (revised January 1,2025). Accessed February 10, 2025.
- 7. 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 Influenzaa. *Clin Infect Dis.* 2019;68(6):895 to 902. doi:10.1093/cid/ciy874
- 8. 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;9:196. Published 2019 Jun 4. doi:10.3389/fcimb.2019.00196



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- 9. Echavarría 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;108:90 to 95. doi:10.1016/j.jcv.2018.09.009
- 10. Weston S, Frieman MB. Respiratory Viruses. *Encyclopedia of Microbiology*. 2019;85 to101. doi:10.1016/B978-0-12-801238-3.66161-5
- 11. 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 to 1911. doi:10.1016/j.chest.2020.05.598
- 12. 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 to 2016 influenza epidemics: An interventional study. *Int J Infect Dis.* 2019;83:32 to 39. doi:10.1016/j.ijid.2019.03.027
- 13. 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 to 167. doi:10.1016/j.chest.2018.09.016
- 14. Molecular Test Assessment. FilmArray respiratory panel (BioFire Diagnostics LLC). Hayes. www.hayesinc.com. Published May 21, 2020 (annual review May 8, 2023). Accessed February 11, 2025.
- 15. Molecular Test Assessment. FilmArray respiratory panel 2 (BioFire Diagnostics LLC). Hayes. www.hayesinc.com. Published March 10, 2020 (annual review March 31, 2023). Accessed February 11, 2025.
- 16. Wils J, Saegeman V, Schuermans A. Impact of multiplexed respiratory viral panels on infection control measures and antimicrobial stewardship: a review of the literature. *Eur J Clin Microbiol Infect Dis.* 2022;41(2):187 to 202. doi:10.1007/s10096-021-04375-3
- 17. 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 to e1502. doi:10.1542/peds.2014-2742
- 18. Metlay JP, Waterer GW, Long AC, et al. Diagnosis and treatment of adults with community-acquired pneumonia. An official clinical practice guideline of the American Thoracic Society and Infectious Diseases Society of America. *Am J Respir Crit Care Med.* 2019;200(7):e45 to e67. doi:10.1164/rccm.201908-1581ST
- 19. Global Initiative for Asthma[®]. Global strategy for asthma management and prevention. https://ginasthma.org/wp-content/uploads/2018/04/wms-GINA-2018-report-tracked_v1.3.pdf. Published 2015. Updated 2018.
- 20. Raby BA. Polymerase chain reaction (PCR). UpToDate. http://www.uptodate.com. Updated March 27, 2024. Accessed February 21, 2025.
- 21. Clark TW, Lindsley K, Wigmosta TB, et al. Rapid multiplex PCR for respiratory viruses reduces time to result and improves clinical care: Results of a systematic review and meta-analysis. *J Infect*. 2023;86(5):462 to 475. doi:10.1016/j.jinf.2023.03.005

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



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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.

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.

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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 <u>prior to</u> applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.



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