

Clinical Policy: Polymerase Chain Reaction Respiratory Viral Panel Testing
Reference Number: CP.MP.181
Date of Last Revision: 11/23Coding Implications
Revision Log

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

Description

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

Policy/Criteria

- I. It is the policy of Centene Corporation[®] that respiratory viral panels (RVPs) testing for five pathogens or fewer are considered **medically necessary** when meeting all of the following¹⁻⁷:
 - 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. Note: Atypical clinical presentations of disease are considered appropriate indications for special populations who may not present with classic symptoms of infection (i.e., the elderly);
 - 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 (AV) and clinical validity (CV) - to established standard-of-care (SOC) 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 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 following:



- 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.^{17, 18}

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.⁶ Viral pathogens are the most common cause of respiratory tract infections.⁸ Rhinovirus, parainfluenza virus, coronavirus, adenovirus, respiratory syncytial virus (RSV), Coxsackie virus, human metapneumovirus, and influenza virus account for most cases of viral respiratory infections.⁹ 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.¹⁰

PCR testing is generally effective for confirming respiratory viral infections with very high sensitivity and specificity.^{7,11} 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.^{8,12,13,14,15} 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.¹⁶

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)."^{6(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 2022, 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



CLINICAL POLICY

Polymerase chain reaction respiratory viral panel testing

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
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



CLINICAL POLICY

Polymerase chain reaction respiratory viral panel testing

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

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	
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.X1	Influenza due to identified novel influenza A virus with pheumonia Influenza due to identified novel influenza A virus with other respiratory	
J09.A2	manifestations	
J09.X3	Influenza due to identified novel influenza A virus with gastrointestinal	
J07.AJ	manifestations	
J09.X9	Influenza due to identified novel influenza A virus with other	
507.247	manifestations	
J10.01	Influenza due to other identified influenza virus with the same other	
010.01	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	
J15.0	Pneumonia due to Pseudomonas	
J15.20	Pneumonia due to r seddonionas Pneumonia due to staphylococcus, unspecified	
J15.211	Pneumonia due to Staphylococcus, unspecified Pneumonia due to Methicillin susceptible Staphylococcus aureus	
J15.211 J15.212	Pneumonia due to Methicillin resistant Staphylococcus aureus	
J15.29	Pneumonia due to other staphylococcus	
J15.3	Pneumonia due to other staphylococcus Pneumonia due to streptococcus, group B	
J15.4	Pneumonia due to streptococci	
	i	
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		
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		
J85.2	Abscess of lung without pneumonia		
J85.2 J85.3	Abscess of lung without pneumonia Abscess of mediastinum		
J85.2 J85.3 R05.1	Abscess of lung without pneumonia Abscess of mediastinum Acute cough		
J85.2 J85.3 R05.1 R05.2	Abscess of lung without pneumonia Abscess of mediastinum Acute cough Subacute cough		



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	
Z20.822	Contact with and (suspected) exposure to COVID-19	
Z20.828	Contact with and (suspected) exposure to other viral communicable	
	diseases	
U07.1	COVID-19	

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

ICD-10-CM	Description	
Code		
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	
D61.09	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	



D70.4 Cyclic neutropenia 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 M [IgM] D80.4 Selective deficiency with increased immunoglobulins or with hyperimmunodeficience with near-normal immunoglobulins or with hyperimmunoglobulinemia D80.6 Antibody deficiencies with predominantly antibody defects D80.8 Other immunodeficiencies with predominantly antibody defects D80.9 Immunodeficiencies with predominantly antibody defects D81.0 Severe combined immunodeficiency [SCID] with low T- and B-cell numbers D81.1 Severe combined immunodeficiency [SCID] with low or normal B-cell numbers D81.2 Severe combined immunodeficiency use to adenosine deaminase deficiency D81.31 Severe combined immunodeficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Severe combined immunodeficiency D81.34 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompat	D70.3	Neutropenia due to infection	
D70.9 Neutropenia, unspecified D80.0 Hereditary hypogammaglobulinemia D80.1 Nonfamilial hypogammaglobulin A [IgA] D80.2 Sclective deficiency of immunoglobulin A [IgA] D80.3 Selective deficiency of immunoglobulin M [IgM] D80.4 Sclective deficiency with increased immunoglobulins or with hyperimmunoglobulinemia D80.5 Immunodeficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia D80.6 Other immunodeficiencies with predominantly antibody defects D80.8 Other immunodeficiency with predominantly antibody defects D80.9 Immunodeficiency with predominantly antibody defects D81.0 Severe combined immunodeficiency [SCID] with low T- and B-cell numbers D81.1 Severe combined immunodeficiency unspecified D81.3 Severe combined immunodeficiency Use to adenosine deaminase deficiency D81.30 Adenosine deaminase deficiency D81.31 Severe combined immunodeficiency Use to adenosine deaminase deficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Purine nuclooside phosphorylase [PNP] deficiency D81.4 Nezelof's syndrome D81.5 Purine nucloosi			
D80.0 Hereditary hypogammaglobulinemia D80.1 Nonfamilial hypogammaglobulinemia D80.2 Selective deficiency of immunoglobulin G [IgG] subclasses D80.3 Selective deficiency of immunoglobulin M [IgM] D80.4 Selective deficiency with increased immunoglobulins or with hyperimmunoglobulinemia D80.6 Antibody deficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia D80.8 Other immunodeficiencies with predominantly antibody defects D80.9 Immunodeficiency [SCID] with reticular dysgenesis D81.1 Severe combined immunodeficiency [SCID] with reticular dysgenesis D81.2 Severe combined immunodeficiency [SCID] with low or normal B-cell numbers D81.30 Adenosine deaminase deficiency unspecified D81.31 Severe combined immunodeficiency fue to adenosine deaminase deficiency D81.32 Adenosine deaminase deficiency D81.33 Severe compatibility complex class I 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 I deficiency		5 1	
D80.1 Nonfamilial hypogammaglobulinemia D80.2 Selective deficiency of immunoglobulin A [IgA] D80.3 Sclective deficiency of immunoglobulin M [IgM] D80.4 Selective deficiency of immunoglobulin M [IgM] D80.5 Immunodeficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia D80.6 Antibody deficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia D80.8 Other immunodeficiency is with predominantly antibody defects D80.9 Immunodeficiency with predominantly antibody defects D81.0 Severe combined immunodeficiency [SCID] with reticular dysgenesis D81.1 Severe combined immunodeficiency [SCID] with low or normal B-cell numbers D81.3 Severe combined immunodeficiency unspecified D81.3 Severe combined immunodeficiency for a denosine deaminase deficiency D81.31 Severe combined immunodeficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Severe combined immunodeficiency D81.4 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class I deficiency D81.810 Bit			
D80.2 Selective deficiency of immunoglobulin A [IgA] D80.3 Selective deficiency of immunoglobulin M [IgM] D80.4 Selective deficiency of immunoglobulin M [IgM] D80.5 Immunodeficiency with increased immunoglobulins or with hyperimmunoglobulinemia D80.6 Antibody deficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia D80.8 Other immunodeficiency with predominantly antibody defects D80.9 Immunodeficiency with predominantly antibody defects D80.9 Immunodeficiency with predominantly antibody defects D81.0 Severe combined immunodeficiency [SCID] with low T- and B-cell numbers D81.1 Severe combined immunodeficiency (SCID) with low or normal B-cell numbers D81.30 Adenosine deaminase deficiency unspecified D81.31 Severe combined immunodeficiency ue to adenosine deaminase deficiency D81.32 Adenosine deaminase deficiency D81.33 Severe combined immunodeficiency D D81.4 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class I deficiency D81.810 Biotinidase deficiency D81.810			
D80.3 Selective deficiency of immunoglobulin G [IgG] subclasses D80.4 Selective deficiency of immunoglobulin M [IgM] D80.5 Immunodeficiency with increased immunoglobulins or with hyperimmunoglobulinemia D80.6 Antibody deficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia D80.8 Other immunodeficiencies with predominantly antibody defects D80.9 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 Que to adenosine deaminase deficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Severe combined immunodeficiency PIP D81.34 Nezelof's syndrome D81.35 Purine nucleoside phosphorylase [PNP] deficiency D81.4 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase IN deficiency D81.6 Major histocompatibility complex class II deficiency D81.818 Other biotin-dependent carboxylase deficiency D81.818 <td></td> <td></td>			
D80.4 Selective deficiency of immunoglobulin M [IgM] D80.5 Immunodeficiency with increased immunoglobulins or with hyperimmunoglobulinemia 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. D81.0 Severe combined immunodeficiency [SCID] with reticular dysgenesis D81.1 Severe combined immunodeficiency [SCID] with low or normal 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 Use to adenosine deaminase deficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Severe combined immunodeficiency D81.39 Other adenosine deaminase deficiency D81.30 Adenosine deaminase foliciency D81.31 Severe compatibility complex class I deficiency D81.4 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class II deficiency			
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 Immunodeficiencies 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 D81.3 Adenosine deaminase deficiency, unspecified D81.31 Severe combined immunodeficiency due to adenosine deaminase deficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Severe combined immunodeficiency 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 I deficiency D81.818 Other biotin-dependent carboxylase deficiency D81.82 Activated Phosphoinositid 3-kinase Delta Syndrome [APDS] D81.82 Other combined immunodeficiencies <			
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 fue to adenosine deaminase deficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Severe combined immunodeficiency D81.34 Nezelof's syndrome D81.35 Purine nucleoside phosphorylase [PNP] deficiency D81.4 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.810 Biotinidase deficiency D81.811 Other biotin-dependent carboxylase deficiency D81.812 Activated Phosphoinositide 3-kinase Delta Syndrome [APDS] D81.82 Activated Phosphoinositide 3-kinase Delta Syndrome [APDS] D81.819 <td< td=""><td></td><td></td></td<>			
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 deficiency D81.33 Severe combined immunodeficiency D81.34 Acexclof's syndrome D81.35 Purine nucleoside phosphorylase [PNP] deficiency D81.4 Nezclof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class I deficiency D81.81 Other biotin-dependent carboxylase deficiency D81.818 Other biotin-dependent carboxylase deficiency D81.818 Other combined immunodeficiencies D81.9 Combined immunodeficiency, unspecified D82.0			
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 D81.3 Severe combined immunodeficiency unspecified D81.3 Severe combined immunodeficiency due to adenosine deaminase deficiency D81.3 Severe combined immunodeficiency due to adenosine deaminase deficiency D81.3 Severe combined immunodeficiency D81.4 Nczelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class II deficiency D81.810 Biotinidase deficiency D81.82 Activated Phosphoinositide 3-kinase Delta Syndrome [APDS] D81.82 Other biotin-dependent carboxylase deficie	D80.6		
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 D81.3 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 D81.33 Severe combined immunodeficiency D81.34 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class I deficiency D81.81 Other biotin-dependent carboxylase deficiency D81.818 Other combined immunodeficiencies D81.82 Activated Phosphoinositide 3-kinase Delta Syndrome [APDS] D81.82 Other combined immunodeficiencies D81.9 Combined immunodeficiency D82.0 Wiskott-Aldrich syndrome D82.1 Di George's syndrome	D80.8		
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 deficiency D81.33 Severe combined immunodeficiency due to adenosine deaminase deficiency D81.34 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class I deficiency D81.7 Major histocompatibility complex class I deficiency D81.810 Biotinidase deficiency D81.82 Activated Phosphoinsitid 3-kinase Delta Syndrome [APDS] D81.82 Other bionind immunodeficiencies D81.9 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			
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 D81.33 Other adenosine deaminase deficiency D81.34 Nezelof's syndrome 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 D81.8 Other biotin-dependent carboxylase deficiency D81.818 Other combined immunodeficiencies 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 associated with other specified			
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 D81.33 Other adenosine deaminase deficiency D81.32 Adenosine deaminase 2 deficiency D81.33 Other adenosine deaminase deficiency D81.4 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class I deficiency D81.810 Biotinidase deficiency D81.818 Other biotin-dependent carboxylase deficiency D81.818 Other combined immunodeficiencies D81.82 Activated Phosphoinositide 3-kinase Delta Syndrome [APDS] D81.89 Other combined immunodeficiency, unspecified D82.0 Wiskott-Aldrich syndrome D82.1 Di George's syndrome D82.2 Immunodeficiency with short-limbed stature D82.3 Immunodeficiency associated with other specified major defects D83.4 Hyperimmunoglo			
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 D81.33 Other adenosine deaminase 2 deficiency D81.34 Nezelof's syndrome D81.5 Purine nucleoside phosphorylase [PNP] deficiency D81.6 Major histocompatibility complex class I deficiency D81.7 Major histocompatibility complex class I deficiency D81.810 Biotinidase 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 D82.3 Immunodeficiency following hereditary defective response to Epstein-Barr virus D82.4 Hyperimmunoglobulin E [IgE] syndrome D82.8 Inmunodeficiency with other specified major defects D83.0 Common variable immunodeficiency with predominant abnormalities of B-cell numbers and function <t< td=""><td>201.1</td><td></td></t<>	201.1		
numbersD81.30Adenosine deaminase deficiency, unspecifiedD81.31Severe combined immunodeficiency due to adenosine deaminase deficiencyD81.32Adenosine deaminase 2 deficiencyD81.33Other adenosine deaminase deficiencyD81.34Nezelof's syndromeD81.5Purine nucleoside phosphorylase [PNP] deficiencyD81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiencyD82.0Wiskott-Aldrich syndromeD82.2Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency with autoantibodies to B- or T-cells	D81 2		
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 D81.39 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 D81.811 Other biotin-dependent carboxylase deficiency D81.82 Activated Phosphoinositide 3-kinase Delta Syndrome [APDS] D81.82 Other combined immunodeficiencies D81.9 Combined immunodeficiency, unspecified D82.0 Wiskott-Aldrich syndrome D82.1 Di George's syndrome D82.2 Immunodeficiency following hereditary defective response to Epstein-Barr virus 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 immunotati	20112		
D81.31Severe combined immunodeficiency due to adenosine deaminase deficiencyD81.32Adenosine deaminase 2 deficiencyD81.39Other adenosine deaminase deficiencyD81.4Nezelof's syndromeD81.5Purine nucleoside phosphorylase [PNP] deficiencyD81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.83Other biotin-dependent carboxylase deficiencyD81.84Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency	D81.30		
deficiencyD81.32Adenosine deaminase 2 deficiencyD81.39Other adenosine deaminase deficiencyD81.4Nezelof's syndromeD81.5Purine nucleoside phosphorylase [PNP] deficiencyD81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class I deficiencyD81.810Biotinidase deficiencyD81.8110Biotinidase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency with autoantibodies to B- or T-cells			
D81.32Adenosine deaminase 2 deficiencyD81.39Other adenosine deaminase deficiencyD81.4Nezelof's syndromeD81.5Purine nucleoside phosphorylase [PNP] deficiencyD81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency sesociated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency with autoantibodies to B- or T-cells		-	
D81.39Other adenosine deaminase deficiencyD81.4Nezelof's syndromeD81.5Purine nucleoside phosphorylase [PNP] deficiencyD81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.810Biotinidase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies	D81.32		
D81.4Nezelof's syndromeD81.5Purine nucleoside phosphorylase [PNP] deficiencyD81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.818Other biotin-dependent carboxylase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency	D81.39		
D81.5Purine nucleoside phosphorylase [PNP] deficiencyD81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.818Other biotin-dependent carboxylase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency	D81.4		
D81.6Major histocompatibility complex class I deficiencyD81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.818Other biotin-dependent carboxylase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency with autoantibodies to B- or T-cells	D81.5		
D81.7Major histocompatibility complex class II deficiencyD81.810Biotinidase deficiencyD81.818Other biotin-dependent carboxylase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficienciency	D81.6		
D81.810Biotinidase deficiencyD81.818Other biotin-dependent carboxylase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein-Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficienciencies	D81.7		
D81.818Other biotin-dependent carboxylase deficiencyD81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies	D81.810		
D81.82Activated Phosphoinositide 3-kinase Delta Syndrome [APDS]D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency with autoantibodies to B- or T-cells			
D81.89Other combined immunodeficienciesD81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiency with autoantibodies to B- or T-cells			
D81.9Combined immunodeficiency, unspecifiedD82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficienciencies			
D82.0Wiskott-Aldrich syndromeD82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies			
D82.1Di George's syndromeD82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies			
D82.2Immunodeficiency with short-limbed statureD82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies		5	
D82.3Immunodeficiency following hereditary defective response to Epstein- Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies			
Barr virusD82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies			
D82.4Hyperimmunoglobulin E [IgE] syndromeD82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies	D02.5		
D82.8Immunodeficiency associated with other specified major defectsD83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies	D82.4		
D83.0Common variable immunodeficiency with predominant abnormalities of B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies			
B-cell numbers and functionD83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies			
D83.1Common variable immunodeficiency with predominant immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies	200.0		
immunoregulatory T-cell disordersD83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies	D83.1		
D83.2Common variable immunodeficiency with autoantibodies to B- or T-cellsD83.8Other common variable immunodeficiencies		immunoregulatory T-cell disorders	
D83.8 Other common variable immunodeficiencies	D83.2	Common variable immunodeficiency with autoantibodies to B- or T-cells	
D83.9 Common variable immunodeficiency, unspecified	D83.8		
	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		
	elsewhere classified		
E08.43	Diabetes mellitus due to underlying condition with diabetic autonomic		
	(poly)neuropathy		
E10.43	Type 1 diabetes mellitus 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		
7040	(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		
104.170	classified elsewhere		
J84.178	Other interstitial pulmonary diseases with fibrosis in diseases classified		
J84.81	elsewhere Lymphangioleiomyomatosis		
J84.81 J84.82	Lymphangioleiomyomatosis		
J04.02	Adult pulmonary Langerhans cell histiocytosis		



104.00			
J84.89	Other specified interstitial pulmonary diseases		
O98.711	Human immunodeficiency virus [HIV] disease complicating pregnancy,		
	first trimester		
O98.712	Human immunodeficiency virus [HIV] disease complicating pregnancy,		
	second trimester		
098.713	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
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	07/21	
date" in the header to "date of last revision" and "date" in the revision log header to "revision date." Specialist review.		



CLINICAL POLICY

Polymerase chain reaction respiratory viral panel testing

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Removed criteria specific to Covid 19 testing in I.A.	08/21	08/21
Annual review. References reviewed and updated. Updated background with no clinical significance. Specialist reviewed.	03/22	03/22
Annual review. Replaced prior criteria in sections I. and II. with current criteria. Removed policy statement III. Background updated with no impact on criteria. Updated verbiage in Table 2 description to include new diagnosis code requirements. Added Place of Service Code 19 in Table 3. Added Table 4, Table 5, and Table 6 which include ICD-10 diagnosis codes. References reviewed and updated.	03/23	03/23
Removed note after the policy description referring to CP.CPC.03 Preventive Health and Clinical Practice Guidelines for PCR testing for COVID-19. Added 0202U, 0223U and 0225U to CPT table 2.	06/23	06/23
Updated description of Table 2 as Table 6 was removed. Added ICD-10 codes J15.61 and J15.69 to Table 4. Added ICD-10 codes J44.81 and J44.89 to Table 5. Deleted Table 6 from policy.	11/23	11/23

References

- 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. <u>http://www.cms.hhs.gov/mcd/search.asp.</u> Published April 17, 2022 (revised January 01, 2023). Accessed February 09, 2023.
- 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. <u>http://www.cms.hhs.gov/mcd/search.asp</u>. Published April 17, 2022 (revised January 01, 2023). Accessed February 09, 2023.
- 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. <u>http://www.cms.hhs.gov/mcd/search.asp</u>. Published April 17, 2022 (revised January 01, 2023). Accessed February 09, 2023.
- 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. <u>http://www.cms.hhs.gov/mcd/search.asp</u>. Published April 17, 2022 (revised January 01, 2023). Accessed February 10, 2023.
- 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. <u>http://www.cms.hhs.gov/mcd/search.asp</u>. Published April 17, 2022 (revised January 01, 2023). Accessed February 10, 2023.
- 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
- 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

- 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
- 9. Weston S, Frieman MB. Respiratory Viruses. *Encyclopedia of Microbiology*. 2019;85 to 101. doi:10.1016/B978-0-12-801238-3.66161-5
- 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
- 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
- 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
- Molecular Test Assessment. FilmArray respiratory panel (BioFire Diagnostics LLC). Hayes. <u>www.hayesinc.com</u>. Published May 21, 2020 (annual review May 31, 2022). Accessed February 22, 2023.
- Molecular Test Assessment. FilmArray respiratory panel 2 (BioFire Diagnostics LLC). Hayes. <u>www.hayesinc.com</u>. Published March 10, 2020 (annual review February 24, 2021). Accessed February 22, 2023.
- 15. 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
- 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
- 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-e67.
- Global Initiative for Asthma®. Global strategy for asthma management and prevention. https://ginasthma.org/wp-content/uploads/2018/04/wms-GINA-2018-reporttracked_v1.3.pdf. Published 2015. Updated 2018.

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.

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

©2019 Centene Corporation. All rights reserved. All materials are exclusively owned by Centene



Corporation and are protected by United States copyright law and international copyright law. No part of this publication may be reproduced, copied, modified, distributed, displayed, stored in a retrieval system, transmitted in any form or by any means, or otherwise published without the prior written permission of Centene Corporation. You may not alter or remove any trademark, copyright or other notice contained herein. Centene[®] and Centene Corporation[®] are registered trademarks exclusively owned by Centene Corporation.