

Assessment of Immunoglobulin Utilization and Shortage

Protocol Addendum

February 2, 2021

STUDY TEAM

FDA/CBER
Dorothy Scott Graça Dores Cindy Zhou Azadeh Shoaibi Hui-Lee Wong
Acumen, LLC
Yoganand Chillarige Ellen Tworkoski Yixin Jiao Ayushi Bhargava Arnstein Lindaas Shanlai Shangguan Rowan McEvoy Yuxin Ma Stella Muthuri Jiemin Liao Nirmal Choradia Laurie Feinberg Michael Wernecke
Stanford University
Lorene Nelson Julia Simard Steven Goodman
IBM
Keran Moll Bill Olesiuk Kathryn Fingar Tim Burrell Jane Naig Shayan Hobbi

OVERVIEW

- STUDY TEAM..... 2**
- 1. Study Population Eligibility Criteria..... 1**
 - 1.1 Diagnosis Categorization 1
- 2. CONDITION CATEGORY-RELATED IMMUNOGLOBULIN UTILIZATION ANALYSES..... 1**
 - 2.1 Statistical Analysis 1
- 3. APPENDIX..... 3**

1. STUDY POPULATION ELIGIBILITY CRITERIA

1.1 Diagnosis Categorization

The final list of diagnosis codes for each condition category incorporates adjustments based on ICD-9-CM and ICD-10-CM code list harmonization and clinical input (Appendix 3A).

2. CONDITION CATEGORY-RELATED IMMUNOGLOBULIN UTILIZATION ANALYSES

To assess the evidence and understand the possible contributing factors of a perceived shortage that started in 2019, we will perform two sets of diagnosis-based analyses, as specified in the original protocol. The amendments below specify eligibility criteria and analytical plan adjustments for the second set of analysis focusing on assessing treatment trends and patterns with conditions that are plausibly treated with IG.

2.1 Statistical Analysis

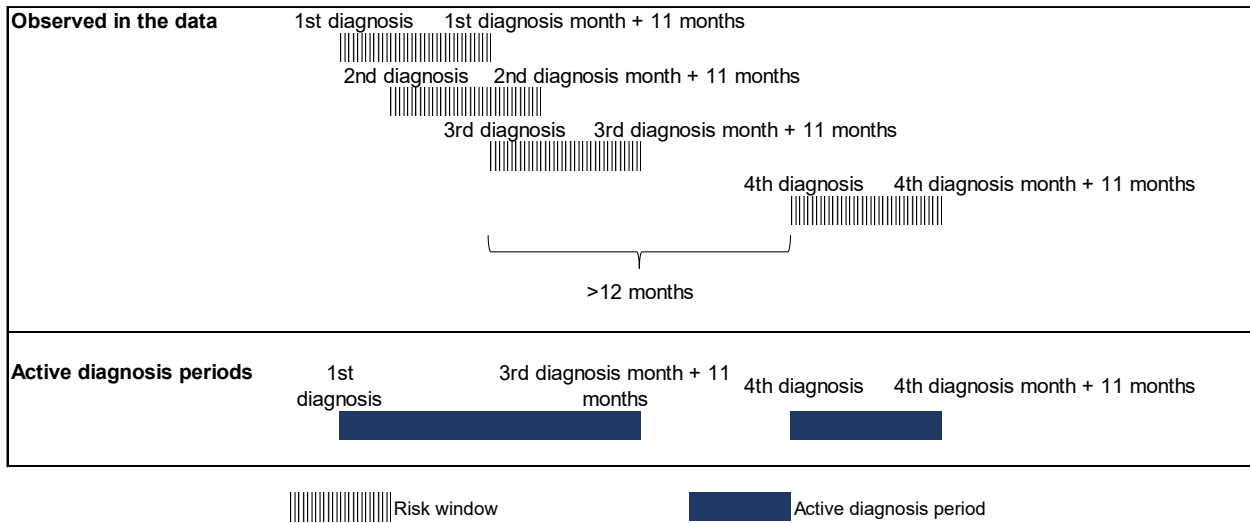
Analysis 2:

This analysis will aim to assess, for patients within a plausible condition category, how the treatment patterns change over time. Based on the presence of specific diagnosis codes in claims data, patients will be classified to condition categories defined in Section 4.3 of the original protocol. In addition to the condition categories specified in Section 4.3, the study will also specifically focus on a more “stable” subset of primary humoral immunodeficiency codes clearly translatable between the ICD-9-CM and ICD-10-CM. The diagnosis codes for this subset can be found in Appendix 3B.

Patients are eligible for inclusion for an “active diagnosis period” during which a patient is presumed to be actively seeking or receiving treatment following one or a series of diagnoses in the same condition category. The time of the first diagnosis in a condition category will be set as the index month for that condition within an active diagnosis period. The risk window of a diagnosis is a at maximum 12-month time window, when a specific diagnosis month remains eligible for IG treatment assessment and varies depending on the condition category and its associated diagnoses. For most diagnoses that are deemed to be not acute, a patient will contribute enrolled person-time during a 12-month period. For acute diagnoses, a patient will contribute enrolled person-time during a predefined period; specifically, the risk window for patients with Kawasaki disease will be 2 months (after the index month) and for patients with Guillain-Barré syndrome (GBS) 3 months (after the index month).

An active diagnosis period extends for another full risk window when subsequent diagnoses in the same condition category occur before the current risk window ends. An active diagnosis period ends when there is no follow-up diagnosis in the same condition category for the risk window (Figure 1). Additionally, diagnoses occurring in 2008 are assessed to ensure that the index month of any active diagnosis period in 2009 is accurately captured. For all active diagnosis periods beginning in 2009, the index date gets reset if there were any diagnoses in 2008 within 12 months prior to the earliest diagnosis in 2009 and their active diagnosis period will be considered to have started in January 2009 for the purpose of the analysis. There is no minimum enrollment requirement for a patient to be eligible and a patient will only contribute to the analysis for the time he/she is enrolled during any active diagnosis period.

Figure 1. Visualization of active diagnosis period construction



As specified in the original protocol, similar analyses as outlined in Table 2 of the original protocol will be performed, restricting to patients in a condition category. In addition to the originally specified analyses, specifications for the two measures (1) administration rate and (2) proportion of IG users are revised as follows:

- **(Condition category-specific) Administration rate:**
 - Numerator: Number of IG administrations for people enrolled (in any month) with a certain condition per year
 - Denominator 1: Number of person-periods with a specific condition enrolled per period
 - Denominator 2: Number of person-periods enrolled per period
- **(Condition category-specific) Proportion of IG users:**
 - Numerator: Number of patients with a certain condition who received IG per year
 - Denominator 1: Number of patients enrolled per year with the certain condition
 - Denominator 2: Number of patients enrolled per year

3. APPENDIX

Appendix 3A. List of ICD-9-CM and ICD-10-CM diagnosis codes and associated condition categories

Diagnosis	Description	Category	ICD Version
340	Multiple sclerosis	Neurologic	ICD-9-CM
2730	Polyclonal hypergammaglobulinemia	Immunodeficiency	ICD-9-CM
2731	Monoclonal paraproteinemia	Oncologic	ICD-9-CM
2738	Other disorders of plasma protein metabolism	Immunodeficiency	ICD-9-CM
2772	Other disorders of purine and pyrimidine metabolism	Immunodeficiency	ICD-9-CM
2776	Other deficiencies of circulating enzymes	Immunodeficiency	ICD-9-CM
2792	Combined immunity deficiency	Immunodeficiency	ICD-9-CM
2793	Unspecified immunity deficiency	Immunodeficiency	ICD-9-CM
2798	Other specified disorders involving the immune mechanism	Immunodeficiency	ICD-9-CM
2799	Unspecified disorder of immune mechanism	Immunodeficiency	ICD-9-CM
2830	Autoimmune hemolytic anemias	Hematologic	ICD-9-CM
2859	Anemia, unspecified	Hematologic	ICD-9-CM
2874	SECOND THROMBOCYTOPENIA (end 2010)	Hematologic	ICD-9-CM
2875	Thrombocytopenia, unspecified	Hematologic	ICD-9-CM
3239	Unspecified causes of encephalitis, myelitis, and encephalomyelitis	Neurologic	ICD-9-CM
3348	Other spinocerebellar diseases	Neurologic	ICD-9-CM
3418	Other demyelinating diseases of central nervous system	Neurologic	ICD-9-CM
3419	Demyelinating disease of central nervous system, unspecified	Neurologic	ICD-9-CM
3559	Mononeuritis of unspecified site	Neurologic	ICD-9-CM
3564	Idiopathic progressive polyneuropathy	Neurologic	ICD-9-CM
3568	Other specified idiopathic peripheral neuropathy	Neurologic	ICD-9-CM
3569	Unspecified hereditary and idiopathic peripheral neuropathy	Neurologic	ICD-9-CM
3570	Acute infective polyneuritis	Neurologic	ICD-9-CM
3571	Polyneuropathy in collagen vascular disease	Neurologic	ICD-9-CM
3573	Polyneuropathy in malignant disease	Neurologic	ICD-9-CM
3574	Polyneuropathy in other diseases classified elsewhere	Neurologic	ICD-9-CM
3579	Unspecified inflammatory and toxic neuropathy	Neurologic	ICD-9-CM
3581	Myasthenic syndromes in diseases classified elsewhere	Neurologic	ICD-9-CM

Diagnosis	Description	Category	ICD Version
3596	Symptomatic inflammatory myopathy in diseases classified elsewhere	Neurologic	ICD-9-CM
3599	Myopathy, unspecified	Neurologic	ICD-9-CM
3929	Rheumatic chorea without mention of heart involvement	Neurologic	ICD-9-CM
4461	Acute febrile mucocutaneous lymph node syndrome [MCLS]	Autoimmune/CTD	ICD-9-CM
5855	Chronic kidney disease, Stage V	Transplantation	ICD-9-CM
5856	End stage renal disease	Transplantation	ICD-9-CM
6944	Pemphigus	Autoimmune/CTD	ICD-9-CM
6945	Pemphigoid	Autoimmune/CTD	ICD-9-CM
7100	Systemic lupus erythematosus	Autoimmune/CTD	ICD-9-CM
7101	Systemic sclerosis	Autoimmune/CTD	ICD-9-CM
7103	Dermatomyositis	Autoimmune/CTD	ICD-9-CM
7104	Polymyositis	Autoimmune/CTD	ICD-9-CM
7108	Other specified diffuse diseases of connective tissue	Autoimmune/CTD	ICD-9-CM
7109	Unspecified diffuse connective tissue disease	Autoimmune/CTD	ICD-9-CM
7761	Transient neonatal thrombocytopenia	Hematologic	ICD-9-CM
20000	Reticulosarcoma, unspecified site, extranodal and solid organ sites	Oncologic	ICD-9-CM
20190	Hodgkin's disease, unspecified type, unspecified site, extranodal and solid org	Oncologic	ICD-9-CM
20200	Nodular lymphoma, unspecified site, extranodal and solid organ sites	Oncologic	ICD-9-CM
20208	Nodular lymphoma, lymph nodes of multiple sites	Oncologic	ICD-9-CM
20280	Other malignant lymphomas, unspecified site, extranodal and solid organ sites	Oncologic	ICD-9-CM
20288	Other malignant lymphomas, lymph nodes of multiple sites	Oncologic	ICD-9-CM
20300	Multiple myeloma, without mention of having achieved remission	Oncologic	ICD-9-CM
20302	Multiple myeloma, in relapse	Oncologic	ICD-9-CM
20400	Acute lymphoid leukemia, without mention of having achieved remission	Oncologic	ICD-9-CM
20401	Acute lymphoid leukemia, in remission	Oncologic	ICD-9-CM
20402	Acute lymphoid leukemia, in relapse	Oncologic	ICD-9-CM
20410	Chronic lymphoid leukemia, without mention of having achieved remission	Oncologic	ICD-9-CM
20411	Chronic lymphoid leukemia, in remission	Oncologic	ICD-9-CM
20412	Chronic lymphoid leukemia, in relapse	Oncologic	ICD-9-CM
20500	Acute myeloid leukemia, without mention of having achieved remission	Oncologic	ICD-9-CM

Diagnosis	Description	Category	ICD Version
20501	Acute myeloid leukemia, in remission	Oncologic	ICD-9-CM
20510	Chronic myeloid leukemia, without mention of having achieved remission	Oncologic	ICD-9-CM
20800	Acute leukemia of unspecified cell type, without mention of having achieved rem	Oncologic	ICD-9-CM
20890	Unspecified leukemia, without mention of having achieved remission	Oncologic	ICD-9-CM
23875	Myelodysplastic syndrome, unspecified	Oncologic	ICD-9-CM
27900	Hypogammaglobulinemia, unspecified	Immunodeficiency	ICD-9-CM
27901	Selective IgA immunodeficiency	Immunodeficiency	ICD-9-CM
27902	Selective IgM immunodeficiency	Immunodeficiency	ICD-9-CM
27903	Other selective immunoglobulin deficiencies	Immunodeficiency	ICD-9-CM
27904	Congenital hypogammaglobulinemia	Immunodeficiency	ICD-9-CM
27905	Immunodeficiency with increased IgM	Immunodeficiency	ICD-9-CM
27906	Common variable immunodeficiency	Immunodeficiency	ICD-9-CM
27909	Other deficiency of humoral immunity	Immunodeficiency	ICD-9-CM
27910	Immunodeficiency with predominant T-cell defect, unspecified	Immunodeficiency	ICD-9-CM
27911	Digeorge's syndrome	Immunodeficiency	ICD-9-CM
27912	Wiskott-aldrich syndrome	Immunodeficiency	ICD-9-CM
27913	Nezelof's syndrome	Immunodeficiency	ICD-9-CM
27919	Other deficiency of cell-mediated immunity	Immunodeficiency	ICD-9-CM
27941	Autoimmune lymphoproliferative syndrome	Autoimmune/CTD	ICD-9-CM
27949	Autoimmune disease, not elsewhere classified	Autoimmune/CTD	ICD-9-CM
27950	Graft-versus-host disease, unspecified	Transplantation	ICD-9-CM
27951	Acute graft-versus-host disease	Transplantation	ICD-9-CM
27952	Chronic graft-versus-host disease	Transplantation	ICD-9-CM
28730	Primary thrombocytopenia,unspecified	Hematologic	ICD-9-CM
28731	Immune thrombocytopenic purpura	Hematologic	ICD-9-CM
28733	Congenital and hereditary thrombocytopenic purpura	Hematologic	ICD-9-CM
28739	Other primary thrombocytopenia	Hematologic	ICD-9-CM
28749	Other secondary thrombocytopenia	Hematologic	ICD-9-CM
28800	Neutropenia, unspecified	Hematologic	ICD-9-CM
32352	Myelitis following immunization procedures	Neurologic	ICD-9-CM
32361	Infectious acute disseminated encephalomyelitis (ADEM)	Neurologic	ICD-9-CM
32381	Other causes of encephalitis and encephalomyelitis	Neurologic	ICD-9-CM
33391	Stiff-man syndrome	Neurologic	ICD-9-CM
34120	Acute (transverse) myelitis NOS	Neurologic	ICD-9-CM

Diagnosis	Description	Category	ICD Version
34121	Acute (transverse) myelitis in conditions classified elsewhere	Neurologic	ICD-9-CM
34122	Idiopathic transverse myelitis	Neurologic	ICD-9-CM
35781	Chronic inflammatory demyelinating polyneuritis	Neurologic	ICD-9-CM
35782	Critical illness polyneuropathy	Neurologic	ICD-9-CM
35789	Other inflammatory and toxic neuropathy	Neurologic	ICD-9-CM
35800	Myasthenia gravis without (acute) exacerbation	Neurologic	ICD-9-CM
35801	Myasthenia gravis with (acute) exacerbation	Neurologic	ICD-9-CM
35830	Lambert-Eaton syndrome, unspecified	Neurologic	ICD-9-CM
35971	Inclusion body myositis	Neurologic	ICD-9-CM
35979	Other inflammatory and immune myopathies, NEC	Neurologic	ICD-9-CM
35989	Other myopathies	Neurologic	ICD-9-CM
40301	Hypertensive chronic kidney disease, malignant, with chronic kidney disease sta	Transplantation	ICD-9-CM
40311	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage	Transplantation	ICD-9-CM
40391	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease s	Transplantation	ICD-9-CM
69460	Benign mucous membrane pemphigoid without mention of ocular involvement	Autoimmune/CTD	ICD-9-CM
69461	Benign mucous membrane pemphigoid with ocular involvement	Autoimmune/CTD	ICD-9-CM
99680	Complications of transplanted organ, unspecified	Transplantation	ICD-9-CM
99681	Complications of transplanted kidney	Transplantation	ICD-9-CM
99682	Complications of transplanted liver	Transplantation	ICD-9-CM
99683	Complications of transplanted heart	Transplantation	ICD-9-CM
99684	Complications of transplanted lung	Transplantation	ICD-9-CM
99685	Complications of transplanted bone marrow	Transplantation	ICD-9-CM
99688	Complications of transplanted organ, stem cell	Transplantation	ICD-9-CM
5172	Lung involvement in systemic sclerosis	Autoimmune/CTD	ICD-9-CM
C8190	Hodgkin lymphoma, unspecified, unspecified site	Oncologic	ICD-10-CM
C8199	Hodgkin lymphoma, unsp, extranodal and solid organ sites	Oncologic	ICD-10-CM
C8200	Follicular lymphoma grade I, unspecified site	Oncologic	ICD-10-CM
C8208	Follicular lymphoma grade I, lymph nodes of multiple sites	Oncologic	ICD-10-CM
C8209	Follicular lymphoma grade I, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8210	Follicular lymphoma grade II, unspecified site	Oncologic	ICD-10-CM

Diagnosis	Description	Category	ICD Version
C8218	Follicular lymphoma grade II, lymph nodes of multiple sites	Oncologic	ICD-10-CM
C8219	Follicular lymphoma grade II, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8220	Follicular lymphoma grade III, unspecified, unspecified site	Oncologic	ICD-10-CM
C8228	Follicular lymphoma grade III, unsp, lymph nodes mult site	Oncologic	ICD-10-CM
C8229	Follicular lymphoma grade III, unsp, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8230	Follicular lymphoma grade IIIa, unspecified site	Oncologic	ICD-10-CM
C8238	Follicular lymphoma grade IIIa, lymph nodes mult site	Oncologic	ICD-10-CM
C8239	Follicular lymphoma grade IIIa, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8240	Follicular lymphoma grade IIIb, unspecified site	Oncologic	ICD-10-CM
C8248	Follicular lymphoma grade IIIb, lymph nodes mult site	Oncologic	ICD-10-CM
C8249	Follicular lymphoma grade IIIb, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8250	Diffuse follicle center lymphoma, unspecified site	Oncologic	ICD-10-CM
C8258	Diffuse follicle center lymphoma, lymph nodes mult site	Oncologic	ICD-10-CM
C8259	Diffuse follicle center lymph, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8260	Cutaneous follicle center lymphoma, unspecified site	Oncologic	ICD-10-CM
C8268	Cutaneous follicle center lymphoma, lymph nodes mult site	Oncologic	ICD-10-CM
C8269	Cutaneous follicle center lymphoma, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8280	Other types of follicular lymphoma, unspecified site	Oncologic	ICD-10-CM
C8288	Other types of follicular lymphoma, lymph nodes mult site	Oncologic	ICD-10-CM
C8289	Other types of follicular lymph, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8290	Follicular lymphoma, unspecified, unspecified site	Oncologic	ICD-10-CM
C8298	Follicular lymphoma, unsp, lymph nodes of multiple sites	Oncologic	ICD-10-CM
C8299	Follicular lymphoma, unsp, extrnodal and solid organ sites	Oncologic	ICD-10-CM

Diagnosis	Description	Category	ICD Version
C8330	Diffuse large B-cell lymphoma, unspecified site	Oncologic	ICD-10-CM
C8339	Diffuse large B-cell lymphoma, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8490	Mature T/NK-cell lymphomas, unspecified, unspecified site	Oncologic	ICD-10-CM
C8498	Mature T/NK-cell lymphomas, unsp, lymph nodes mult site	Oncologic	ICD-10-CM
C8499	Mature T/NK-cell lymph, unsp, extrnod and solid organ sites	Oncologic	ICD-10-CM
C84A0	Cutaneous T-cell lymphoma, unspecified, unspecified site	Oncologic	ICD-10-CM
C84A8	Cutaneous T-cell lymphoma, unsp, lymph nodes mult site	Oncologic	ICD-10-CM
C84A9	Cutan T-cell lymphoma, unsp, extrnod and solid organ sites	Oncologic	ICD-10-CM
C84Z0	Other mature T/NK-cell lymphomas, unspecified site	Oncologic	ICD-10-CM
C84Z8	Oth mature T/NK-cell lymphomas, lymph nodes mult site	Oncologic	ICD-10-CM
C84Z9	Oth mature T/NK-cell lymph, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8510	Unspecified B-cell lymphoma, unspecified site	Oncologic	ICD-10-CM
C8518	Unspecified B-cell lymphoma, lymph nodes of multiple sites	Oncologic	ICD-10-CM
C8519	Unsp B-cell lymphoma, extranodal and solid organ sites	Oncologic	ICD-10-CM
C8520	Mediastinal (thymic) large B-cell lymphoma, unspecified site	Oncologic	ICD-10-CM
C8528	Mediastinal (thymic) large B-cell lymphoma, nodes mult site	Oncologic	ICD-10-CM
C8529	Mediastnl large B-cell lymph, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8580	Oth types of non-Hodgkin lymphoma, unspecified site	Oncologic	ICD-10-CM
C8588	Oth types of non-Hodgkin lymphoma, lymph nodes mult site	Oncologic	ICD-10-CM
C8589	Oth types of non-hodg lymph, extrnod and solid organ sites	Oncologic	ICD-10-CM
C8590	Non-Hodgkin lymphoma, unspecified, unspecified site	Oncologic	ICD-10-CM
C8598	Non-Hodgkin lymphoma, unsp, lymph nodes of multiple sites	Oncologic	ICD-10-CM
C8599	Non-Hodgkin lymphoma, unsp, extranodal and solid organ sites	Oncologic	ICD-10-CM

Diagnosis	Description	Category	ICD Version
C864	Blastic NK-cell lymphoma	Oncologic	ICD-10-CM
C9000	Multiple myeloma not having achieved remission	Oncologic	ICD-10-CM
C9002	Multiple myeloma in relapse	Oncologic	ICD-10-CM
C9100	Acute lymphoblastic leukemia not having achieved remission	Oncologic	ICD-10-CM
C9101	Acute lymphoblastic leukemia, in remission	Oncologic	ICD-10-CM
C9102	Acute lymphoblastic leukemia, in relapse	Oncologic	ICD-10-CM
C9110	Chronic lymphocytic leuk of B-cell type not achieve remis	Oncologic	ICD-10-CM
C9111	Chronic lymphocytic leukemia of B-cell type in remission	Oncologic	ICD-10-CM
C9112	Chronic lymphocytic leukemia of B-cell type in relapse	Oncologic	ICD-10-CM
C9190	Lymphoid leukemia, unspecified not having achieved remission	Oncologic	ICD-10-CM
C9200	Acute myeloblastic leukemia, not having achieved remission	Oncologic	ICD-10-CM
C9201	Acute myeloblastic leukemia, in remission	Oncologic	ICD-10-CM
C9210	Chronic myeloid leuk, BCR/ABL-positive, not achieve remis	Oncologic	ICD-10-CM
C9240	Acute promyelocytic leukemia, not having achieved remission	Oncologic	ICD-10-CM
C9241	Acute promyelocytic leukemia, in remission	Oncologic	ICD-10-CM
C9250	Acute myelomonocytic leukemia, not having achieved remission	Oncologic	ICD-10-CM
C9251	Acute myelomonocytic leukemia, in remission	Oncologic	ICD-10-CM
C9260	Acute myeloid leukemia w 11q23-abnormality not achieve remis	Oncologic	ICD-10-CM
C9261	Acute myeloid leukemia with 11q23-abnormality in remission	Oncologic	ICD-10-CM
C9290	Myeloid leukemia, unspecified, not having achieved remission	Oncologic	ICD-10-CM
C9291	Myeloid leukemia, unspecified in remission	Oncologic	ICD-10-CM
C92A0	Acute myeloid leuk w multilin dysplasia, not achieve remis	Oncologic	ICD-10-CM
C92A1	Acute myeloid leukemia w multilin dysplasia, in remission	Oncologic	ICD-10-CM

Diagnosis	Description	Category	ICD Version
C9500	Acute leukemia of unsp cell type not achieve remission	Oncologic	ICD-10-CM
C9590	Leukemia, unspecified not having achieved remission	Oncologic	ICD-10-CM
D469	Myelodysplastic syndrome, unspecified	Oncologic	ICD-10-CM
D46Z	Other myelodysplastic syndromes	Oncologic	ICD-10-CM
D472	Monoclonal gammopathy	Oncologic	ICD-10-CM
D590	Drug-induced autoimmune hemolytic anemia	Hematologic	ICD-10-CM
D591	Other autoimmune hemolytic anemias	Hematologic	ICD-10-CM
D649	Anemia, unspecified	Hematologic	ICD-10-CM
D693	Immune thrombocytopenic purpura	Hematologic	ICD-10-CM
D6942	Congenital and hereditary thrombocytopenia purpura	Hematologic	ICD-10-CM
D6949	Other primary thrombocytopenia	Hematologic	ICD-10-CM
D6951	Posttransfusion purpura	Hematologic	ICD-10-CM
D6959	Other secondary thrombocytopenia	Hematologic	ICD-10-CM
D696	Thrombocytopenia, unspecified	Hematologic	ICD-10-CM
D709	Neutropenia, unspecified	Hematologic	ICD-10-CM
D800	Hereditary hypogammaglobulinemia	Immunodeficiency	ICD-10-CM
D801	Nonfamilial hypogammaglobulinemia	Immunodeficiency	ICD-10-CM
D802	Selective deficiency of immunoglobulin A [IgA]	Immunodeficiency	ICD-10-CM
D803	Selective deficiency of immunoglobulin G [IgG] subclasses	Immunodeficiency	ICD-10-CM
D804	Selective deficiency of immunoglobulin M [IgM]	Immunodeficiency	ICD-10-CM
D805	Immunodeficiency with increased immunoglobulin M [IgM]	Immunodeficiency	ICD-10-CM
D806	Antibody defic w near-norm immunoglob or w hyperimmunoglob	Immunodeficiency	ICD-10-CM
D807	Transient hypogammaglobulinemia of infancy	Immunodeficiency	ICD-10-CM

Diagnosis	Description	Category	ICD Version
D808	Other immunodeficiencies with predominantly antibody defects	Immunodeficiency	ICD-10-CM
D809	Immunodeficiency with predominantly antibody defects, unsp	Immunodeficiency	ICD-10-CM
D810	Severe combined immunodeficiency with reticular dysgenesis	Immunodeficiency	ICD-10-CM
D811	Severe combined immunodeficiency w low T- and B-cell numbers	Immunodeficiency	ICD-10-CM
D812	Severe combined immunodef w low or normal B-cell numbers	Immunodeficiency	ICD-10-CM
D813	Adenosine deaminase [ADA] deficiency	Immunodeficiency	ICD-10-CM
D8130	Adenosine deaminase deficiency, unspecified	Immunodeficiency	ICD-10-CM
D8131	Severe combined immunodeficiency due to adenosine deaminase deficiency	Immunodeficiency	ICD-10-CM
D8132	Adenosine deaminase 2 deficiency	Immunodeficiency	ICD-10-CM
D8139	Other adenosine deaminase deficiency	Immunodeficiency	ICD-10-CM
D814	Nezelof's syndrome	Immunodeficiency	ICD-10-CM
D815	Purine nucleoside phosphorylase [PNP] deficiency	Immunodeficiency	ICD-10-CM
D816	Major histocompatibility complex class I deficiency	Immunodeficiency	ICD-10-CM
D817	Major histocompatibility complex class II deficiency	Immunodeficiency	ICD-10-CM
D81810	Biotinidase deficiency	Immunodeficiency	ICD-10-CM
D8189	Other combined immunodeficiencies	Immunodeficiency	ICD-10-CM
D819	Combined immunodeficiency, unspecified	Immunodeficiency	ICD-10-CM
D820	Wiskott-Aldrich syndrome	Immunodeficiency	ICD-10-CM
D821	Di George's syndrome	Immunodeficiency	ICD-10-CM
D822	Immunodeficiency with short-limbed stature	Immunodeficiency	ICD-10-CM
D823	Immunodeficiency with hereditary defective response to Epstein-Barr virus	Immunodeficiency	ICD-10-CM
D824	Hyperimmunoglobulin E [IgE] syndrome	Immunodeficiency	ICD-10-CM
D828	Immunodeficiency associated with other major defects	Immunodeficiency	ICD-10-CM

Diagnosis	Description	Category	ICD Version
D829	Immunodeficiency associated with major defect, unspecified	Immunodeficiency	ICD-10-CM
D830	Com variab immunodef w predom abnlt of B-cell nums & functn	Immunodeficiency	ICD-10-CM
D831	Com variab immunodef w predom immunoreg T-cell disorders	Immunodeficiency	ICD-10-CM
D832	Common variable immunodef w autoantibodies to B- or T-cells	Immunodeficiency	ICD-10-CM
D838	Other common variable immunodeficiencies	Immunodeficiency	ICD-10-CM
D839	Common variable immunodeficiency, unspecified	Immunodeficiency	ICD-10-CM
D840	Lymphocyte function antigen-1 [LFA-1] defect	Immunodeficiency	ICD-10-CM
D841	Defects in the complement system	Immunodeficiency	ICD-10-CM
D848	Other specified immunodeficiencies	Immunodeficiency	ICD-10-CM
D849	Immunodeficiency, unspecified	Immunodeficiency	ICD-10-CM
D890	Polyclonal hypergammaglobulinemia	Immunodeficiency	ICD-10-CM
D892	Hypergammaglobulinemia, unspecified	Immunodeficiency	ICD-10-CM
D893	Immune reconstitution syndrome	Immunodeficiency	ICD-10-CM
D89810	Acute graft-versus-host disease	Transplantation	ICD-10-CM
D89811	Chronic graft-versus-host disease	Transplantation	ICD-10-CM
D89813	Graft-versus-host disease, unspecified	Transplantation	ICD-10-CM
D8982	Autoimmune lymphoproliferative syndrome [ALPS]	Autoimmune/CTD	ICD-10-CM
D8989	Other specified disorders involving the immune mechanism, not elsewhere classified	Immunodeficiency	ICD-10-CM
D899	Disorder involving the immune mechanism, unspecified	Immunodeficiency	ICD-10-CM
E791	Lesch-Nyhan syndrome	Immunodeficiency	ICD-10-CM
E792	Myoadenylate deaminase deficiency	Immunodeficiency	ICD-10-CM
E798	Other disorders of purine and pyrimidine metabolism	Immunodeficiency	ICD-10-CM
E799	Disorder of purine and pyrimidine metabolism, unspecified	Immunodeficiency	ICD-10-CM

Diagnosis	Description	Category	ICD Version
E8809	Oth disorders of plasma-protein metabolism, NEC	Immunodeficiency	ICD-10-CM
G0400	Acute disseminated encephalitis and encephalomyelitis, unsp	Neurologic	ICD-10-CM
G0401	Postinfectious acute disseminated encephalitis and encephalomyelitis (postinfectious ADEM)	Neurologic	ICD-10-CM
G0402	Postimmunization acute disseminated encephalitis, myelitis and encephalomyelitis	Neurologic	ICD-10-CM
G0439	Other acute necrotizing hemorrhagic encephalopathy	Neurologic	ICD-10-CM
G0481	Other encephalitis and encephalomyelitis	Neurologic	ICD-10-CM
G0489	Other myelitis	Neurologic	ICD-10-CM
G0490	Encephalitis and encephalomyelitis, unspecified	Neurologic	ICD-10-CM
G0491	Myelitis, unspecified	Neurologic	ICD-10-CM
G113	Cerebellar ataxia with defective DNA repair	Neurologic	ICD-10-CM
G118	Other hereditary ataxias	Neurologic	ICD-10-CM
G130	Paraneoplastic neuromyopathy and neuropathy	Neurologic	ICD-10-CM
G131	Other systemic atrophy primarily affecting central nervous system in neoplastic disease	Neurologic	ICD-10-CM
G2582	Stiff-man syndrome	Neurologic	ICD-10-CM
G35	Multiple sclerosis	Neurologic	ICD-10-CM
G361	Acute and subacute hemorrhagic leukoencephalitis [Hurst]	Neurologic	ICD-10-CM
G368	Other specified acute disseminated demyelination	Neurologic	ICD-10-CM
G369	Acute disseminated demyelination, unspecified	Neurologic	ICD-10-CM
G371	Central demyelination of corpus callosum	Neurologic	ICD-10-CM
G372	Central pontine myelinolysis	Neurologic	ICD-10-CM
G373	Acute transverse myelitis in demyelinating disease of CNS	Neurologic	ICD-10-CM
G374	Subacute necrotizing myelitis of central nervous system	Neurologic	ICD-10-CM
G378	Oth demyelinating diseases of central nervous system	Neurologic	ICD-10-CM

Diagnosis	Description	Category	ICD Version
G379	Demyelinating disease of central nervous system, unspecified	Neurologic	ICD-10-CM
G588	Other specified mononeuropathies	Neurologic	ICD-10-CM
G589	Mononeuropathy, unspecified	Neurologic	ICD-10-CM
G59	Mononeuropathy in diseases classified elsewhere	Neurologic	ICD-10-CM
G603	Idiopathic progressive neuropathy	Neurologic	ICD-10-CM
G608	Other hereditary and idiopathic neuropathies	Neurologic	ICD-10-CM
G609	Hereditary and idiopathic neuropathy, unspecified	Neurologic	ICD-10-CM
G610	Guillain-Barre syndrome	Neurologic	ICD-10-CM
G6181	Chronic inflammatory demyelinating polyneuritis	Neurologic	ICD-10-CM
G6182	Multifocal motor neuropathy	Neurologic	ICD-10-CM
G6189	Other inflammatory polyneuropathies	Neurologic	ICD-10-CM
G619	Inflammatory polyneuropathy, unspecified	Neurologic	ICD-10-CM
G6281	Critical illness polyneuropathy	Neurologic	ICD-10-CM
G6289	Other specified polyneuropathies	Neurologic	ICD-10-CM
G629	Polyneuropathy, unspecified	Neurologic	ICD-10-CM
G63	Polyneuropathy in diseases classified elsewhere	Neurologic	ICD-10-CM
G64	Other disorders of peripheral nervous system	Neurologic	ICD-10-CM
G7000	Myasthenia gravis without (acute) exacerbation	Neurologic	ICD-10-CM
G7001	Myasthenia gravis with (acute) exacerbation	Neurologic	ICD-10-CM
G7080	Lambert-Eaton syndrome, unspecified	Neurologic	ICD-10-CM
G7241	Inclusion body myositis [IBM]	Neurologic	ICD-10-CM
G7249	Other inflammatory and immune myopathies, NEC	Neurologic	ICD-10-CM
G7289	Other specified myopathies	Neurologic	ICD-10-CM

Diagnosis	Description	Category	ICD Version
G729	Myopathy, unspecified	Neurologic	ICD-10-CM
G733	Myasthenic syndromes in other diseases classified elsewhere	Neurologic	ICD-10-CM
G737	Myopathy in diseases classified elsewhere	Neurologic	ICD-10-CM
I029	Rheumatic chorea without heart involvement	Neurologic	ICD-10-CM
I120	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Transplantation	ICD-10-CM
L100	Pemphigus vulgaris	Autoimmune/CTD	ICD-10-CM
L101	Pemphigus vegetans	Autoimmune/CTD	ICD-10-CM
L102	Pemphigus foliaceus	Autoimmune/CTD	ICD-10-CM
L103	Brazilian pemphigus [fogo selvagem]	Autoimmune/CTD	ICD-10-CM
L104	Pemphigus erythematosus	Autoimmune/CTD	ICD-10-CM
L105	Drug-induced pemphigus	Autoimmune/CTD	ICD-10-CM
L1081	Paraneoplastic pemphigus	Autoimmune/CTD	ICD-10-CM
L1089	Other pemphigus	Autoimmune/CTD	ICD-10-CM
L109	Pemphigus, unspecified	Autoimmune/CTD	ICD-10-CM
L120	Bullous pemphigoid	Autoimmune/CTD	ICD-10-CM
L121	Cicatricial pemphigoid	Autoimmune/CTD	ICD-10-CM
L128	Other pemphigoid	Autoimmune/CTD	ICD-10-CM
L129	Pemphigoid, unspecified	Autoimmune/CTD	ICD-10-CM
M042	Cryopyrin-associated periodic syndromes	Autoimmune/CTD	ICD-10-CM
M048	Other autoinflammatory syndromes	Autoimmune/CTD	ICD-10-CM
M049	Autoinflammatory syndrome, unspecified	Autoimmune/CTD	ICD-10-CM
M0540	Rheumatoid myopathy with rheumatoid arthritis of unspecified site	Autoimmune/CTD	ICD-10-CM
M05411	Rheumatoid myopathy with rheumatoid arthritis of right shoulder	Autoimmune/CTD	ICD-10-CM

Diagnosis	Description	Category	ICD Version
M05412	Rheumatoid myopathy with rheumatoid arthritis of left shoulder	Autoimmune/CTD	ICD-10-CM
M05419	Rheumatoid myopathy with rheumatoid arthritis of unspecified shoulder	Autoimmune/CTD	ICD-10-CM
M05421	Rheumatoid myopathy with rheumatoid arthritis of right elbow	Autoimmune/CTD	ICD-10-CM
M05422	Rheumatoid myopathy with rheumatoid arthritis of left elbow	Autoimmune/CTD	ICD-10-CM
M05429	Rheumatoid myopathy with rheumatoid arthritis of unspecified elbow	Autoimmune/CTD	ICD-10-CM
M05431	Rheumatoid myopathy with rheumatoid arthritis of right wrist	Autoimmune/CTD	ICD-10-CM
M05432	Rheumatoid myopathy with rheumatoid arthritis of left wrist	Autoimmune/CTD	ICD-10-CM
M05439	Rheumatoid myopathy with rheumatoid arthritis of unspecified wrist	Autoimmune/CTD	ICD-10-CM
M05441	Rheumatoid myopathy with rheumatoid arthritis of right hand	Autoimmune/CTD	ICD-10-CM
M05442	Rheumatoid myopathy with rheumatoid arthritis of left hand	Autoimmune/CTD	ICD-10-CM
M05449	Rheumatoid myopathy with rheumatoid arthritis of unspecified hand	Autoimmune/CTD	ICD-10-CM
M05451	Rheumatoid myopathy with rheumatoid arthritis of right hip	Autoimmune/CTD	ICD-10-CM
M05452	Rheumatoid myopathy with rheumatoid arthritis of left hip	Autoimmune/CTD	ICD-10-CM
M05459	Rheumatoid myopathy with rheumatoid arthritis of unspecified hip	Autoimmune/CTD	ICD-10-CM
M05461	Rheumatoid myopathy with rheumatoid arthritis of right knee	Autoimmune/CTD	ICD-10-CM
M05462	Rheumatoid myopathy with rheumatoid arthritis of left knee	Autoimmune/CTD	ICD-10-CM
M05469	Rheumatoid myopathy with rheumatoid arthritis of unspecified knee	Autoimmune/CTD	ICD-10-CM
M05471	Rheumatoid myopathy with rheumatoid arthritis of right ankle and foot	Autoimmune/CTD	ICD-10-CM
M05472	Rheumatoid myopathy with rheumatoid arthritis of left ankle and foot	Autoimmune/CTD	ICD-10-CM
M05479	Rheumatoid myopathy with rheumatoid arthritis of unspecified ankle and foot	Autoimmune/CTD	ICD-10-CM
M0549	Rheumatoid myopathy with rheumatoid arthritis of multiple sites	Autoimmune/CTD	ICD-10-CM
M0550	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified site	Autoimmune/CTD	ICD-10-CM
M05511	Rheumatoid polyneuropathy with rheumatoid arthritis of right shoulder	Autoimmune/CTD	ICD-10-CM

Diagnosis	Description	Category	ICD Version
M05512	Rheumatoid polyneuropathy with rheumatoid arthritis of left shoulder	Autoimmune/CTD	ICD-10-CM
M05519	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified shoulder	Autoimmune/CTD	ICD-10-CM
M05521	Rheumatoid polyneuropathy with rheumatoid arthritis of right elbow	Autoimmune/CTD	ICD-10-CM
M05522	Rheumatoid polyneuropathy with rheumatoid arthritis of left elbow	Autoimmune/CTD	ICD-10-CM
M05529	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified elbow	Autoimmune/CTD	ICD-10-CM
M05531	Rheumatoid polyneuropathy with rheumatoid arthritis of right wrist	Autoimmune/CTD	ICD-10-CM
M05532	Rheumatoid polyneuropathy with rheumatoid arthritis of left wrist	Autoimmune/CTD	ICD-10-CM
M05539	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified wrist	Autoimmune/CTD	ICD-10-CM
M05541	Rheumatoid polyneuropathy with rheumatoid arthritis of right hand	Autoimmune/CTD	ICD-10-CM
M05542	Rheumatoid polyneuropathy with rheumatoid arthritis of left hand	Autoimmune/CTD	ICD-10-CM
M05549	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hand	Autoimmune/CTD	ICD-10-CM
M05551	Rheumatoid polyneuropathy with rheumatoid arthritis of right hip	Autoimmune/CTD	ICD-10-CM
M05552	Rheumatoid polyneuropathy with rheumatoid arthritis of left hip	Autoimmune/CTD	ICD-10-CM
M05559	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hip	Autoimmune/CTD	ICD-10-CM
M05561	Rheumatoid polyneuropathy with rheumatoid arthritis of right knee	Autoimmune/CTD	ICD-10-CM
M05562	Rheumatoid polyneuropathy with rheumatoid arthritis of left knee	Autoimmune/CTD	ICD-10-CM
M05569	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified knee	Autoimmune/CTD	ICD-10-CM
M05571	Rheumatoid polyneuropathy with rheumatoid arthritis of right ankle and foot	Autoimmune/CTD	ICD-10-CM
M05572	Rheumatoid polyneuropathy with rheumatoid arthritis of left ankle and foot	Autoimmune/CTD	ICD-10-CM
M05579	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified ankle and foot	Autoimmune/CTD	ICD-10-CM
M0559	Rheumatoid polyneuropathy with rheumatoid arthritis of multiple sites	Autoimmune/CTD	ICD-10-CM
M303	Mucocutaneous lymph node syndrome [Kawasaki]	Autoimmune/CTD	ICD-10-CM
M320	Drug-induced systemic lupus erythematosus	Autoimmune/CTD	ICD-10-CM

Diagnosis	Description	Category	ICD Version
M3210	Systemic lupus erythematosus, organ or system involv unsp	Autoimmune/CTD	ICD-10-CM
M3211	Endocarditis in systemic lupus erythematosus	Autoimmune/CTD	ICD-10-CM
M3212	Pericarditis in systemic lupus erythematosus	Autoimmune/CTD	ICD-10-CM
M3213	Lung involvement in systemic lupus erythematosus	Autoimmune/CTD	ICD-10-CM
M3214	Glomerular disease in systemic lupus erythematosus	Autoimmune/CTD	ICD-10-CM
M3215	Tubulo-interstitial neuropath in sys lupus erythematosus	Autoimmune/CTD	ICD-10-CM
M3219	Oth organ or system involv in systemic lupus erythematosus	Autoimmune/CTD	ICD-10-CM
M328	Other forms of systemic lupus erythematosus	Autoimmune/CTD	ICD-10-CM
M329	Systemic lupus erythematosus, unspecified	Autoimmune/CTD	ICD-10-CM
M3300	Juvenile dermatomyositis, organ involvement unspecified	Autoimmune/CTD	ICD-10-CM
M3301	Juvenile dermatomyositis with respiratory involvement	Autoimmune/CTD	ICD-10-CM
M3302	Juvenile dermatomyositis with myopathy	Autoimmune/CTD	ICD-10-CM
M3303	Juvenile dermatomyositis without myopathy	Autoimmune/CTD	ICD-10-CM
M3309	Juvenile dermatomyositis with other organ involvement	Autoimmune/CTD	ICD-10-CM
M3310	Other dermatomyositis, organ involvement unspecified	Autoimmune/CTD	ICD-10-CM
M3311	Other dermatomyositis with respiratory involvement	Autoimmune/CTD	ICD-10-CM
M3312	Other dermatomyositis with myopathy	Autoimmune/CTD	ICD-10-CM
M3313	Other dermatomyositis without myopathy	Autoimmune/CTD	ICD-10-CM
M3319	Other dermatomyositis with other organ involvement	Autoimmune/CTD	ICD-10-CM
M3320	Polymyositis, organ involvement unspecified	Autoimmune/CTD	ICD-10-CM
M3321	Polymyositis with respiratory involvement	Autoimmune/CTD	ICD-10-CM
M3322	Polymyositis with myopathy	Autoimmune/CTD	ICD-10-CM
M3329	Polymyositis with other organ involvement	Autoimmune/CTD	ICD-10-CM

Diagnosis	Description	Category	ICD Version
M3390	Dermatopolymyositis, unsp, organ involvement unspecified	Autoimmune/CTD	ICD-10-CM
M3391	Dermatopolymyositis, unsp with respiratory involvement	Autoimmune/CTD	ICD-10-CM
M3392	Dermatopolymyositis, unspecified with myopathy	Autoimmune/CTD	ICD-10-CM
M3393	Dermatopolymyositis, unspecified without myopathy	Autoimmune/CTD	ICD-10-CM
M3399	Dermatopolymyositis, unsp with other organ involvement	Autoimmune/CTD	ICD-10-CM
M340	Progressive systemic sclerosis	Autoimmune/CTD	ICD-10-CM
M341	CR(E)ST syndrome	Autoimmune/CTD	ICD-10-CM
M342	Systemic sclerosis induced by drug and chemical	Autoimmune/CTD	ICD-10-CM
M3481	Systemic sclerosis with lung involvement	Autoimmune/CTD	ICD-10-CM
M3482	Systemic sclerosis with myopathy	Autoimmune/CTD	ICD-10-CM
M3483	Systemic sclerosis with polyneuropathy	Autoimmune/CTD	ICD-10-CM
M3489	Other systemic sclerosis	Autoimmune/CTD	ICD-10-CM
M349	Systemic sclerosis, unspecified	Autoimmune/CTD	ICD-10-CM
M3502	Sicca syndrome with lung involvement	Autoimmune/CTD	ICD-10-CM
M3503	Sicca syndrome with myopathy	Autoimmune/CTD	ICD-10-CM
M3504	Sicca syndrome with tubulo-interstitial nephropathy	Autoimmune/CTD	ICD-10-CM
M3509	Sicca syndrome with other organ involvement	Autoimmune/CTD	ICD-10-CM
M351	Other overlap syndromes	Autoimmune/CTD	ICD-10-CM
M355	Multifocal fibrosclerosis	Autoimmune/CTD	ICD-10-CM
M358	Other specified systemic involvement of connective tissue	Autoimmune/CTD	ICD-10-CM
M359	Systemic involvement of connective tissue, unspecified	Autoimmune/CTD	ICD-10-CM
M360	Dermato(poly)myositis in neoplastic disease	Autoimmune/CTD	ICD-10-CM
M368	Systemic disord of conn tiss in oth diseases classd elswhr	Autoimmune/CTD	ICD-10-CM

Diagnosis	Description	Category	ICD Version
N186	End stage renal disease	Transplantation	ICD-10-CM
P610	Transient neonatal thrombocytopenia	Hematologic	ICD-10-CM
T8600	Unspecified complication of bone marrow transplant	Transplantation	ICD-10-CM
T8601	Bone marrow transplant rejection	Transplantation	ICD-10-CM
T8602	Bone marrow transplant failure	Transplantation	ICD-10-CM
T8603	Bone marrow transplant infection	Transplantation	ICD-10-CM
T8609	Other complications of bone marrow transplant	Transplantation	ICD-10-CM
T8610	Unspecified complication of kidney transplant	Transplantation	ICD-10-CM
T8611	Kidney transplant rejection	Transplantation	ICD-10-CM
T8612	Kidney transplant failure	Transplantation	ICD-10-CM
T8613	Kidney transplant infection	Transplantation	ICD-10-CM
T8619	Other complication of kidney transplant	Transplantation	ICD-10-CM
T8620	Unspecified complication of heart transplant	Transplantation	ICD-10-CM
T8621	Heart transplant rejection	Transplantation	ICD-10-CM
T8622	Heart transplant failure	Transplantation	ICD-10-CM
T8623	Heart transplant infection	Transplantation	ICD-10-CM
T86290	Cardiac allograft vasculopathy	Transplantation	ICD-10-CM
T86298	Other complications of heart transplant	Transplantation	ICD-10-CM
T8630	Unspecified complication of heart-lung transplant	Transplantation	ICD-10-CM
T8631	Heart-lung transplant rejection	Transplantation	ICD-10-CM
T8632	Heart-lung transplant failure	Transplantation	ICD-10-CM
T8633	Heart-lung transplant infection	Transplantation	ICD-10-CM
T8639	Other complications of heart-lung transplant	Transplantation	ICD-10-CM

Diagnosis	Description	Category	ICD Version
T8640	Unspecified complication of liver transplant	Transplantation	ICD-10-CM
T8641	Liver transplant rejection	Transplantation	ICD-10-CM
T8642	Liver transplant failure	Transplantation	ICD-10-CM
T8643	Liver transplant infection	Transplantation	ICD-10-CM
T8649	Other complications of liver transplant	Transplantation	ICD-10-CM
T865	Complications of stem cell transplant	Transplantation	ICD-10-CM
T86810	Lung transplant rejection	Transplantation	ICD-10-CM
T86811	Lung transplant failure	Transplantation	ICD-10-CM
T86812	Lung transplant infection	Transplantation	ICD-10-CM
T86818	Other complications of lung transplant	Transplantation	ICD-10-CM
T86819	Unspecified complication of lung transplant	Transplantation	ICD-10-CM
V420	Kidney replaced by transplant	Transplantation	ICD-9-CM
V421	Heart replaced by transplant	Transplantation	ICD-9-CM
V426	Lung replaced by transplant	Transplantation	ICD-9-CM
V427	Liver replaced by transplant	Transplantation	ICD-9-CM
V4281	Bone marrow replaced by transplant	Transplantation	ICD-9-CM
V4282	Peripheral stem cells replaced by transplant	Transplantation	ICD-9-CM
V4983	Awaiting organ transplant status	Transplantation	ICD-9-CM
Z7682	Awaiting organ transplant status	Transplantation	ICD-10-CM
Z940	Kidney transplant status	Transplantation	ICD-10-CM
Z941	Heart transplant status	Transplantation	ICD-10-CM
Z942	Lung transplant status	Transplantation	ICD-10-CM
Z943	Heart and lungs transplant status	Transplantation	ICD-10-CM
Z944	Liver transplant status	Transplantation	ICD-10-CM
Z9481	Bone marrow transplant status	Transplantation	ICD-10-CM
Z9484	Stem cells transplant status	Transplantation	ICD-10-CM

Appendix 3B. List of ICD-9-CM and ICD-10-CM diagnosis codes in the subset of primary humoral immunodeficiency

Diagnosis	Description	Category	ICD Version
2792	Combined immunity deficiency	Stable Immunodeficiency	ICD-9-CM
27904	Congenital hypogammaglobulinemia	Stable Immunodeficiency	ICD-9-CM
27905	Immunodeficiency with increased IgM	Stable Immunodeficiency	ICD-9-CM
27906	Common variable immunodeficiency	Stable Immunodeficiency	ICD-9-CM
27911	Digeorge's syndrome	Stable Immunodeficiency	ICD-9-CM
27912	Wiskott-aldrich syndrome	Stable Immunodeficiency	ICD-9-CM
27913	Nezelof's syndrome	Stable Immunodeficiency	ICD-9-CM
D800	Hereditary hypogammaglobulinemia	Stable Immunodeficiency	ICD-10-CM
D805	Immunodeficiency with increased immunoglobulin M [IgM]	Stable Immunodeficiency	ICD-10-CM
D810	Severe combined immunodeficiency with reticular dysgenesis	Stable Immunodeficiency	ICD-10-CM
D811	Severe combined immunodeficiency w low T- and B-cell numbers	Stable Immunodeficiency	ICD-10-CM
D812	Severe combined immunodef w low or normal B-cell numbers	Stable Immunodeficiency	ICD-10-CM
D814	Nezelof's syndrome	Stable Immunodeficiency	ICD-10-CM
D817	Major histocompatibility complex class II deficiency	Stable Immunodeficiency	ICD-10-CM
D819	Combined immunodeficiency, unspecified	Stable Immunodeficiency	ICD-10-CM
D820	Wiskott-Aldrich syndrome	Stable Immunodeficiency	ICD-10-CM
D821	Di George's syndrome	Stable Immunodeficiency	ICD-10-CM
D830	Com variab immunodef w predom abnl of B-cell nums & functn	Stable Immunodeficiency	ICD-10-CM
D831	Com variab immunodef w predom immunoreg T-cell disorders	Stable Immunodeficiency	ICD-10-CM
D832	Common variable immunodef w autoantibodies to B- or T-cells	Stable Immunodeficiency	ICD-10-CM
D838	Other common variable immunodeficiencies	Stable Immunodeficiency	ICD-10-CM

Diagnosis	Description	Category	ICD Version
D839	Common variable immunodeficiency, unspecified	Stable Immunodeficiency	ICD-10-CM