

APPENDIX I: Immunocompromised State Diagnosis and Procedure Codes

Immunocompromised state diagnosis codes: (IMMUNID)

B20	Human immunodeficiency virus [HIV] disease	D8982	Autoimmune lymphoproliferative syndrome [ALPS]
B59	Pneumocystosis	D8989	Other specified disorders involving the immune mechanism, not elsewhere classified
C802	Malignant neoplasm associated with transplanted organ	D899	Disorder involving the immune mechanism, Unspecified
C888	Other malignant immunoproliferative diseases	E40	Kwashiorkor
C9440	Acute panmyelosis with myelofibrosis not having achieved remission	E41	Nutritional marasmus
C9441	Acute panmyelosis with myelofibrosis, in remission	E42	Marasmic kwashiorkor
C9442	Acute panmyelosis with myelofibrosis, in relapse	E43	Unspecified severe protein-calorie malnutrition
C946	Myelodysplastic disease, not classified	I120	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease
D4622	Refractory anemia with excess of blasts 2	I1311	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease
D4701	Cutaneous mastocytosis	I132	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
D4702	Systemic mastocytosis	K912	Postsurgical malabsorption, not elsewhere classified
D4709	Other mast cell neoplasms of uncertain behavior	N185	Chronic kidney disease, stage 5
D471	Chronic myeloproliferative disease	N186	End stage renal disease
D479	Neoplasm of uncertain behavior of lymphoid, hematopoietic and related tissue, Unspecified	T8600	Unspecified complication of bone marrow transplant
D47Z1	Post-Transplant lymphoproliferative disorder (PTLD)	T8601	Bone marrow transplant rejection
D47Z2	Castleman disease	T8602	Bone marrow transplant failure
D47Z9	Other specified neoplasms of uncertain behavior of lymphoid, hematopoietic and related tissue	T8603	Bone marrow transplant infection
D6109	Other constitutional aplastic anemia	T8609	Other complications of bone marrow transplant

D61810	Antineoplastic chemotherapy induced pancytopenia	T8610	Unspecified complication of kidney transplant
D61811	Other drug-induced pancytopenia	T8611	Kidney transplant rejection
D61818	Other pancytopenia	T8612	Kidney transplant failure
D700	Congenital agranulocytosis	T8613	Kidney transplant infection
D701	Agranulocytosis secondary to cancer chemotherapy	T8619	Other complication of kidney transplant
D702	Other drug-induced agranulocytosis	T8620	Unspecified complication of heart transplant
D704	Cyclic neutropenia	T8621	Heart transplant rejection
D708	Other neutropenia	T8622	Heart transplant failure
D709	Neutropenia, Unspecified	T8623	Heart transplant infection
D71	Functional disorders of polymorphonuclear neutrophils	T86290	Cardiac allograft vasculopathy
D720	Genetic anomalies of leukocytes	T86298	Other complications of heart transplant
D72810	Lymphocytopenia	T8630	Unspecified complication of heart-lung transplant
D72818	Other decreased white blood cell count	T8631	Heart-Lung transplant rejection
D72819	Decreased white blood cell count, Unspecified	T8632	Heart-Lung transplant failure
D7381	Neutropenic splenomegaly	T8633	Heart-Lung transplant infection
D7581	Myelofibrosis	T8639	Other complications of heart-lung transplant
D761	Hemophagocytic lymphohistiocytosis	T8640	Unspecified complication of liver transplant
D762	Hemophagocytic syndrome, infection-associated	T8641	Liver transplant rejection
D763	Other histiocytosis syndromes	T8642	Liver transplant failure
D800	Hereditary hypogammaglobulinemia	T8643	Liver transplant infection
D801	Nonfamilial hypogammaglobulinemia	T8649	Other complications of liver transplant
D802	Selective deficiency of immunoglobulin A [IGA]	T865	Complications of stem cell transplant
D803	Selective deficiency of immunoglobulin G [IGG] subclasses	T86810	Lung transplant rejection
D804	Selective deficiency of immunoglobulin M [IGM]	T86811	Lung transplant failure
D805	Immunodeficiency with increased immunoglobulin M [IGM]	T86812	Lung transplant infection
D806	Antibody deficiency with near-normal immunoglobulins or with hyperimmunoglobulinemia	T86818	Other complications of lung transplant
D807	Transient hypogammaglobulinemia of infancy	T86819	Unspecified complication of lung transplant

D808	Other immunodeficiencies with predominantly antibody defects	T86850	Intestine transplant rejection
D809	Immunodeficiency with predominantly antibody defects, Unspecified	T86851	Intestine transplant failure
D810	Severe combined immunodeficiency [SCID] with reticular dysgenesis	T86852	Intestine transplant infection
D811	Severe combined immunodeficiency [SCID] with low T- and B-cell numbers	T86858	Other complications of intestine transplant
D812	Severe combined immunodeficiency [SCID] with low or normal B-cell numbers	T86859	Unspecified complication of intestine transplant
D8130	Adenosine deaminase deficiency, Unspecified	T86890	Other transplanted tissue rejection
D8131	Severe combined immunodeficiency due to adenosine deaminase deficiency	T86891	Other transplanted tissue failure
D8132	Adenosine deaminase 2 deficiency	T86892	Other transplanted tissue infection
D8139	Other adenosine deaminase deficiency	T86898	Other complications of Other transplanted tissue
D814	Nezelof's syndrome	T86899	Unspecified complication of Other transplanted tissue
D816	Major histocompatibility complex class I deficiency	T8690	Unspecified complication of Unspecified transplanted organ and tissue
D817	Major histocompatibility complex class II deficiency	T8691	Unspecified transplanted organ and tissue rejection
D8189	Other combined immunodeficiencies	T8692	Unspecified transplanted organ and tissue failure
D819	Combined immunodeficiency, Unspecified	T8693	Unspecified transplanted organ and tissue infection
D820	Wiskott-Aldrich syndrome	T8699	Other complications of Unspecified transplanted organ and tissue
D821	Di George's syndrome	Z4821	Encounter for aftercare following heart transplant
D822	Immunodeficiency with short-limbed stature	Z4822	Encounter for aftercare following kidney transplant
D823	Immunodeficiency following hereditary defective response to Epstein-Barr virus	Z4823	Encounter for aftercare following liver transplant
D824	Hyperimmunoglobulin E [IGE] syndrome	Z4824	Encounter for aftercare following lung transplant
D828	Immunodeficiency associated with Other specified major defects	Z48280	Encounter for aftercare following heart-lung transplant

D829	Immunodeficiency associated with major defect, Unspecified	Z48288	Encounter for aftercare following multiple organ transplant
D830	Common variable immunodeficiency with predominant abnormalities of B-cell numbers and function	Z48290	Encounter for aftercare following bone marrow transplant
D831	Common variable immunodeficiency with predominant immunoregulatory T-cell disorders	Z48298	Encounter for aftercare following Other organ transplant
D832	Common variable immunodeficiency with autoantibodies to B- or T-cells	Z4901	Encounter for fitting and adjustment of extracorporeal dialysis catheter
D838	Other common variable immunodeficiencies	Z4902	Encounter for fitting and adjustment of peritoneal dialysis catheter
D839	Common variable immunodeficiency, Unspecified	Z4931	Encounter for adequacy testing for hemodialysis
D840	Lymphocyte function antigen-1 [LFA-1] defect	Z4932	Encounter for adequacy testing for peritoneal dialysis
D841	Defects in the complement system	Z940	Kidney transplant status
D848	Other specified immunodeficiencies	Z941	Heart transplant status
D8481	Immunodeficiency due to conditions classified elsewhere	Z942	Lung transplant status
D84821	Immunodeficiency due to drugs	Z943	Heart and lungs transplant status
D84822	Immunodeficiency due to external causes	Z944	Liver transplant status
D8489	Other immunodeficiencies	Z9481	Bone marrow transplant status
D849	Immunodeficiency, Unspecified	Z9482	Intestine transplant status
D893	Immune reconstitution syndrome	Z9483	Pancreas transplant status
D89810	Acute graft-versus-host disease	Z9484	Stem cells transplant status
D89811	Chronic graft-versus-host disease	Z9489	Other transplanted organ and tissue status
D89812	Acute on chronic graft-versus-host disease	Z992	Dependence on renal dialysis
D89813	Graft-Versus-Host disease, Unspecified		

Immunocompromised state procedure codes: (IMMUNIP)

02YA0Z0	Transplantation of heart, allogeneic, open approach	30240AZ	Transfusion of embryonic stem cells into central vein, open approach
02YA0Z2	Transplantation of heart, zooplasmic, open approach	30240G0	Transfusion of autologous bone marrow into central vein, open approach
0BYC0Z0	Transplantation of right upper lung lobe, allogeneic, open approach	30240G1	Transfusion of nonautologous bone marrow into central vein, open approach

0BYC0Z2	Transplantation of right upper lung lobe, zooplastic, open approach	30240G2	Transfusion of allogeneic related bone marrow into central vein, open approach
0BYD0Z0	Transplantation of right middle lung lobe, allogeneic, open approach	30240G3	Transfusion of allogeneic unrelated bone marrow into central vein, open approach
0BYD0Z2	Transplantation of right middle lung lobe, zooplastic, open approach	30240G4	Transfusion of allogeneic Unspecified bone marrow into central vein, open approach
0BYF0Z0	Transplantation of right lower lung lobe, allogeneic, open approach	30240U2	Transfusion of allogeneic related T-cell depleted hematopoietic stem cells into central vein, open approach
0BYF0Z2	Transplantation of right lower lung lobe, zooplastic, open approach	30240U3	Transfusion of allogeneic unrelated T-cell depleted hematopoietic stem cells into central vein, open approach
0BYG0Z0	Transplantation of left upper lung lobe, allogeneic, open approach	30240U4	Transfusion of allogeneic Unspecified T-cell depleted hematopoietic stem cells into central vein, open approach
0BYG0Z2	Transplantation of left upper lung lobe, zooplastic, open approach	30240X0	Transfusion of autologous cord blood stem cells into central vein, open approach
0BYH0Z0	Transplantation of lung lingula, allogeneic, open approach	30240X1	Transfusion of nonautologous cord blood stem cells into central vein, open approach
0BYH0Z2	Transplantation of lung lingula, zooplastic, open approach	30240X2	Transfusion of allogeneic related cord blood stem cells into central vein, open approach
0BYJ0Z0	Transplantation of left lower lung lobe, allogeneic, open approach	30240X3	Transfusion of allogeneic unrelated cord blood stem cells into central vein, open approach
0BYJ0Z2	Transplantation of left lower lung lobe, zooplastic, open approach	30240X4	Transfusion of allogeneic Unspecified cord blood stem cells into central vein, open approach
0BYK0Z0	Transplantation of right lung, allogeneic, open approach	30240Y0	Transfusion of autologous hematopoietic stem cells into central vein, open approach
0BYK0Z2	Transplantation of right lung, zooplastic, open approach	30240Y1	Transfusion of nonautologous hematopoietic stem cells into central vein, open approach
0BYL0Z0	Transplantation of left lung, allogeneic, open approach	30240Y2	Transfusion of allogeneic related hematopoietic stem cells into central vein, open approach
0BYL0Z2	Transplantation of left lung, zooplastic, open approach	30240Y3	Transfusion of allogeneic unrelated hematopoietic stem cells into central vein, open approach

0BYM0Z0	Transplantation of bilateral lungs, allogeneic, open approach	30240Y4	Transfusion of allogeneic Unspecified hematopoietic stem cells into central vein, open approach
0BYM0Z2	Transplantation of bilateral lungs, zooplasic, open approach	30243AZ	Transfusion of embryonic stem cells into central vein, percutaneous approach
0DY50Z0	Transplantation of esophagus, allogeneic, open approach	30243G0	Transfusion of autologous bone marrow into central vein, percutaneous approach
0DY50Z2	Transplantation of esophagus, zooplasic, open approach	30243G1	Transfusion of nonautologous bone marrow into central vein, percutaneous approach
0DY60Z0	Transplantation of stomach, allogeneic, open approach	30243G2	Transfusion of allogeneic related bone marrow into central vein, percutaneous approach
0DY60Z2	Transplantation of stomach, zooplasic, open approach	30243G3	Transfusion of allogeneic unrelated bone marrow into central vein, percutaneous approach
0DY80Z0	Transplantation of small intestine, allogeneic, open approach	30243G4	Transfusion of allogeneic Unspecified bone marrow into central vein, percutaneous approach
0DY80Z2	Transplantation of small intestine, zooplasic, open approach	30243U2	Transfusion of allogeneic related T-cell depleted hematopoietic stem cells into central vein, percutaneous approach
0DYE0Z0	Transplantation of large intestine, allogeneic, open approach	30243U3	Transfusion of allogeneic unrelated T-cell depleted hematopoietic stem cells into central vein, percutaneous approach
0DYE0Z2	Transplantation of large intestine, zooplasic, open approach	30243U4	Transfusion of allogeneic Unspecified T-cell depleted hematopoietic stem cells into central vein, percutaneous approach
0FY00Z0	Transplantation of liver, allogeneic, open approach	30243X0	Transfusion of autologous cord blood stem cells into central vein, percutaneous approach
0FY00Z2	Transplantation of liver, zooplasic, open approach	30243X1	Transfusion of nonautologous cord blood stem cells into central vein, percutaneous approach
0FYG0Z0	Transplantation of pancreas, allogeneic, open approach	30243X2	Transfusion of allogeneic related cord blood stem cells into central vein, percutaneous approach
0FYG0Z2	Transplantation of pancreas, zooplasic, open approach	30243X3	Transfusion of allogeneic unrelated cord blood stem cells into central vein, percutaneous approach

0TY00Z0	Transplantation of right kidney, allogeneic, open approach	30243X4	Transfusion of allogeneic Unspecified cord blood stem cells into central vein, percutaneous approach
0TY00Z2	Transplantation of right kidney, zooplasic, open approach	30243Y0	Transfusion of autologous hematopoietic stem cells into central vein, percutaneous approach
0TY10Z0	Transplantation of left kidney, allogeneic, open approach	30243Y1	Transfusion of nonautologous hematopoietic stem cells into central vein, percutaneous approach
0TY10Z2	Transplantation of left kidney, zooplasic, open approach	30243Y2	Transfusion of allogeneic related hematopoietic stem cells into central vein, percutaneous approach
0WY20Z0	Transplantation of face, allogeneic, open approach	30243Y3	Transfusion of allogeneic unrelated hematopoietic stem cells into central vein, percutaneous approach
0XYJ0Z0	Transplantation of right hand, allogeneic, open approach	30243Y4	Transfusion of allogeneic Unspecified hematopoietic stem cells into central vein, percutaneous approach
0XYK0Z0	Transplantation of left hand, allogeneic, open approach	3E03005	Introduction of Other antineoplastic into peripheral vein, open approach
30230AZ	Transfusion of embryonic stem cells into peripheral vein, open approach	3E0300M	Introduction of monoclonal antibody into peripheral vein, open approach
30230G0	Transfusion of autologous bone marrow into peripheral vein, open approach	3E0300P	Introduction of clofarabine into peripheral vein, open approach
30230G1	Transfusion of nonautologous bone marrow into peripheral vein, open approach	3E030U1	Introduction of nonautologous pancreatic islet cells into peripheral vein, open approach
30230G2	Transfusion of allogeneic related bone marrow into peripheral vein, open approach	3E030WL	Introduction of immunosuppressive into peripheral vein, open
30230G3	Transfusion of allogeneic unrelated bone marrow into peripheral vein, open approach	3E03305	Introduction of Other antineoplastic into peripheral vein, percutaneous approach
30230G4	Transfusion of allogeneic Unspecified bone marrow into peripheral vein, open approach	3E0330M	Introduction of monoclonal antibody into peripheral vein, percutaneous approach
30230U2	Transfusion of allogeneic related T-cell depleted hematopoietic stem cells into peripheral vein, open approach	3E0330P	Introduction of clofarabine into peripheral vein, percutaneous approach
30230U3	Transfusion of allogeneic unrelated T-cell depleted hematopoietic stem cells into peripheral vein, open approach	3E033U1	Introduction of nonautologous pancreatic islet cells into peripheral vein, percutaneous approach

30230U4	Transfusion of allogeneic Unspecified T-cell depleted hematopoietic stem cells into peripheral vein, open approach	3E033WL	Introduction of immunosuppressive into peripheral vein, percutaneous
30230X0	Transfusion of autologous cord blood stem cells into peripheral vein, open approach	3E04005	Introduction of Other antineoplastic into central vein, open approach
30230X1	Transfusion of nonautologous cord blood stem cells into peripheral vein, open approach	3E0400M	Introduction of monoclonal antibody into central vein, open approach
30230X2	Transfusion of allogeneic related cord blood stem cells into peripheral vein, open approach	3E0400P	Introduction of clofarabine into central vein, open approach
30230X3	Transfusion of allogeneic unrelated cord blood stem cells into peripheral vein, open approach	3E040WL	Introduction of immunosuppressive into central vein, open
30230X4	Transfusion of allogeneic Unspecified cord blood stem cells into peripheral vein, open approach	3E04305	Introduction of Other antineoplastic into central vein, percutaneous approach
30230Y0	Transfusion of autologous hematopoietic stem cells into peripheral vein, open approach	3E0430M	Introduction of monoclonal antibody into central vein, percutaneous approach
30230Y1	Transfusion of nonautologous hematopoietic stem cells into peripheral vein, open approach	3E0430P	Introduction of clofarabine into central vein, percutaneous approach
30230Y2	Transfusion of allogeneic related hematopoietic stem cells into peripheral vein, open approach	3E043WL	Introduction of immunosuppressive into central vein, percutaneous
30230Y3	Transfusion of allogeneic unrelated hematopoietic stem cells into peripheral vein, open approach	3E0A305	Introduction of Other antineoplastic into bone marrow, percutaneous approach
30230Y4	Transfusion of allogeneic Unspecified hematopoietic stem cells into peripheral vein, open approach	3E0A30M	Introduction of monoclonal antibody into bone marrow, percutaneous approach
30233AZ	Transfusion of embryonic stem cells into peripheral vein, percutaneous approach	3E0J3U1	Introduction of nonautologous pancreatic islet cells into biliary and pancreatic tract, percutaneous approach
30233G0	Transfusion of autologous bone marrow into peripheral vein, percutaneous approach	3E0J7U1	Introduction of nonautologous pancreatic islet cells into biliary and pancreatic tract, via natural or artificial opening

30233G1	Transfusion of nonautologous bone marrow into peripheral vein, percutaneous approach	3E0J8U1	Introduction of nonautologous pancreatic islet cells into biliary and pancreatic tract, via natural or artificial opening endoscopic
30233G2	Transfusion of allogeneic related bone marrow into peripheral vein, percutaneous approach	XW03336	Introduction of durvalumab antineoplastic into peripheral vein, percutaneous approach, new technology group 6
30233G3	Transfusion of allogeneic unrelated bone marrow into peripheral vein, percutaneous approach	XW03351	Introduction of blinatumomab antineoplastic immunotherapy into peripheral vein, percutaneous approach, new technology group 1
30233G4	Transfusion of allogeneic Unspecified bone marrow into peripheral vein, percutaneous approach	XW033B3	Introduction of cytarabine and daunorubicin liposome antineoplastic into peripheral vein, percutaneous approach, new technology group 3
30233U2	Transfusion of allogeneic related T-cell depleted hematopoietic stem cells into peripheral vein, percutaneous approach	XW033C6	Introduction of ecilizumab into peripheral vein, percutaneous approach, new technology group 6
30233U3	Transfusion of allogeneic unrelated T-cell depleted hematopoietic stem cells into peripheral vein, percutaneous approach	XW033D6	Introduction of atezolizumab antineoplastic into peripheral vein, percutaneous approach, new technology group 6
30233U4	Transfusion of allogeneic Unspecified T-cell depleted hematopoietic stem cells into peripheral vein, percutaneous approach	XW033S5	Introduction of iobenguane I-131 antineoplastic into peripheral vein, percutaneous approach, new technology group 5
30233X0	Transfusion of autologous cord blood stem cells into peripheral vein, percutaneous approach	XW04336	Introduction of durvalumab antineoplastic into central vein, percutaneous approach, new technology group 6
30233X1	Transfusion of nonautologous cord blood stem cells into peripheral vein, percutaneous approach	XW04351	Introduction of blinatumomab antineoplastic immunotherapy into central vein, percutaneous approach, new technology group 1
30233X2	Transfusion of allogeneic related cord blood stem cells into peripheral vein, percutaneous approach	XW043B3	Introduction of cytarabine and daunorubicin liposome antineoplastic into central vein, percutaneous approach, new technology group 3
30233X3	Transfusion of allogeneic unrelated cord blood stem cells into peripheral vein, percutaneous approach	XW043C6	Introduction of ecilizumab into central vein, percutaneous approach, new technology group 6

30233X4	Transfusion of allogeneic Unspecified cord blood stem cells into peripheral vein, percutaneous approach	XW043D6	Introduction of atezolizumab antineoplastic into central vein, percutaneous approach, new technology group 6
30233Y0	Transfusion of autologous hematopoietic stem cells into peripheral vein, percutaneous approach	XW043S5	Introduction of iobenguane I-131 antineoplastic into central vein, percutaneous approach, new technology group 5
30233Y1	Transfusion of nonautologous hematopoietic stem cells into peripheral vein, percutaneous approach	XW23346	Transfusion of brexucabtagene autoleucel immunotherapy into peripheral vein, percutaneous approach, new technology group 6
30233Y2	Transfusion of allogeneic related hematopoietic stem cells into peripheral vein, percutaneous approach	XW23376	Transfusion of lisocabtagene maraleucel immunotherapy into peripheral vein, percutaneous approach, new technology group 6
30233Y3	Transfusion of allogeneic unrelated hematopoietic stem cells into peripheral vein, percutaneous approach	XW24346	Transfusion of brexucabtagene autoleucel immunotherapy into central vein, percutaneous approach, new technology group 6
30233Y4	Transfusion of allogeneic Unspecified hematopoietic stem cells into peripheral vein, percutaneous approach	XW24376	Transfusion of lisocabtagene maraleucel immunotherapy into central vein, percutaneous approach, new technology group 6