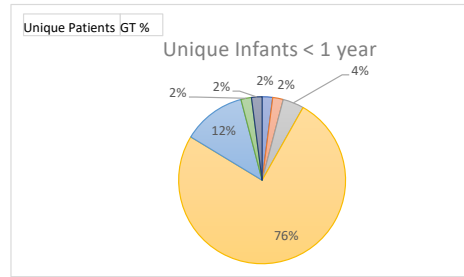
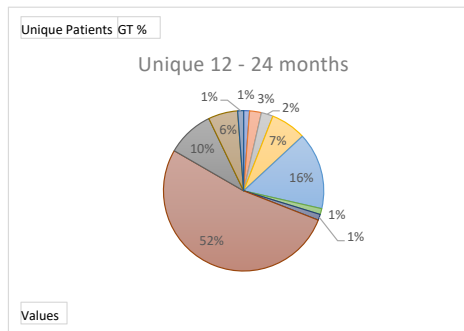


2020 Rare Diseases Summary

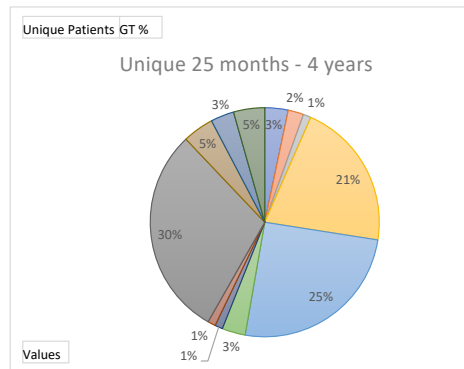
Row Labels	Age Bracket	Unique Patients	GT %
	Infants < 1 year	49	100.00%
	Glucose-6-phosphate dehydrog	1	2.04%
	Leukemia	1	2.04%
	Malignant Neoplasm/tumor	2	4.08%
	Sickle-cell	37	75.51%
	Thalassemia	6	12.24%
	Thrombocytopenia	1	2.04%
	Von Willebrand's disease	1	2.04%
Grand Total		49	100.00%



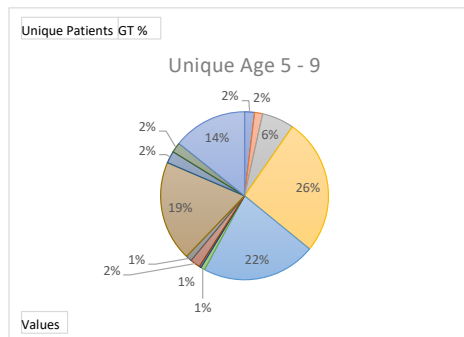
Row Labels	Age Bracket	Unique Patients	GT %
	12 - 24 months	84	100.00%
	Benign Neoplasm/tumor	1	1.19%
	Glucose-6-phosphate dehydrog	2	2.38%
	Hemophilia	2	2.38%
	Leukemia	6	7.14%
	Malignant Neoplasm/tumor	13	15.48%
	Misc. Congenial Disorders	1	1.19%
	Miscellaneous	1	1.19%
	Sickle-cell	44	52.38%
	Thalassemia	8	9.52%
	Thrombocytopenia	5	5.95%
	Von Willebrand's disease	1	1.19%
Grand Total		84	100.00%



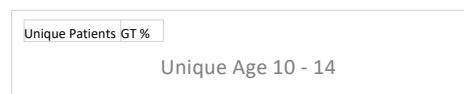
Row Labels	Age Bracket	Unique Patients	GT %
	25 months - 4 years	91	100.00%
	Benign Neoplasm/tumor	3	3.30%
	Glucose-6-phosphate dehydrog	2	2.20%
	Hemophilia	1	1.10%
	Leukemia	19	20.88%
	Malignant Neoplasm/tumor	23	25.27%
	Misc. Congenial Disorders	3	3.30%
	Misc. Metabolic Disorder	1	1.10%
	Non-Hodgkin's Lymphoma	1	1.10%
	Sickle-cell	27	29.67%
	Thalassemia	4	4.40%
	Thrombocytopenia	3	3.30%
	Von Willebrand's disease	4	4.40%
Grand Total		91	100.00%



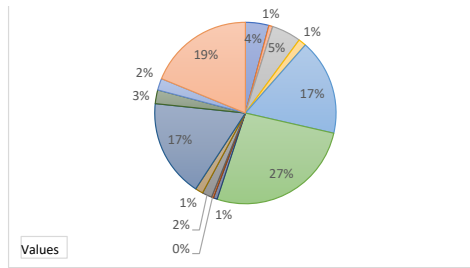
Row Labels	Age Bracket	Unique Patients	GT %
	Age 5 - 9	259	100.00%
	Benign Neoplasm/tumor	5	1.93%
	Glucose-6-phosphate dehydrog	4	1.54%
	Hemophilia	16	6.18%
	Leukemia	68	26.25%
	Malignant Neoplasm/tumor	57	22.01%
	Misc. Congenial Disorders	2	0.77%
	Misc. Metabolic Disorder	1	0.39%
	Non-Hodgkin's Lymphoma	5	1.93%
	Platelet Defects	3	1.16%
	Sickle-cell	50	19.31%
	Thalassemia	6	2.32%
	Thrombocytopenia	5	1.93%
	Von Willebrand's disease	37	14.29%
Grand Total		259	100.00%



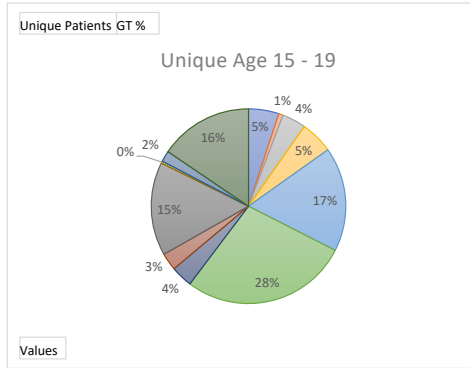
Row Labels	Age Bracket	Unique Patients	GT %
	Age 10 - 14	287	100.00%
	Benign Neoplasm/tumor	12	4.18%
	Glucose-6-phosphate dehydrog	2	0.70%



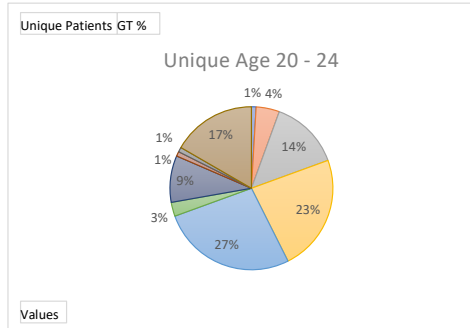
Hemophilia	15	5.23%
Hodgkin's Lymphoma	4	1.39%
Leukemia	49	17.07%
Malignant Neoplasm/tumor	76	26.48%
Misc. Metabolic Disorder	2	0.70%
Miscellaneous	1	0.35%
Non-Hodgkin's Lymphoma	5	1.74%
Platelet Defects	4	1.39%
Sickle-cell	50	17.42%
Thalassemia	7	2.44%
Thrombocytopenia	6	2.09%
Von Willebrand's disease	54	18.82%
Grand Total	287	100.00%



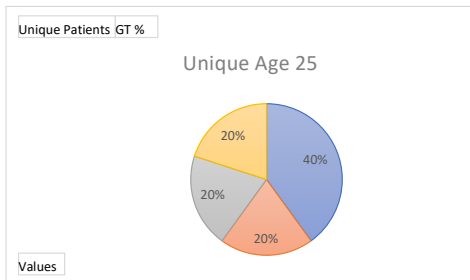
Row Labels	Age Bracket	Unique Patients	GT %
Age 15 - 19		277	100.00%
	Benign Neoplasm/tumor	14	5.05%
	Glucose-6-phosphate dehydrog	2	0.72%
	Hemophilia	11	3.97%
	Hodgkin's Lymphoma	15	5.42%
	Leukemia	48	17.33%
	Malignant Neoplasm/tumor	77	27.80%
	Non-Hodgkin's Lymphoma	10	3.61%
	Platelet Defects	8	2.89%
	Sickle-cell	43	15.52%
	Thalassemia	1	0.36%
	Thrombocytopenia	5	1.81%
	Von Willebrand's disease	43	15.52%
Grand Total		277	100.00%



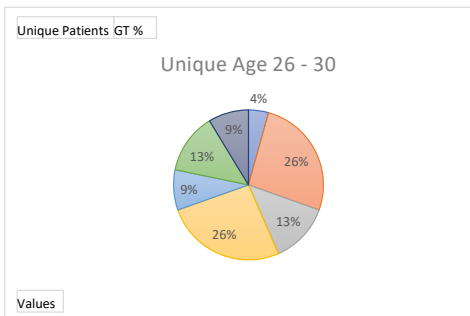
Row Labels	Age Bracket	Unique Patients	GT %
Age 20 - 24		108	100.00%
	Benign Neoplasm/tumor	1	0.93%
	Hemophilia	5	4.63%
	Hodgkin's Lymphoma	15	13.89%
	Leukemia	25	23.15%
	Malignant Neoplasm/tumor	29	26.85%
	Non-Hodgkin's Lymphoma	3	2.78%
	Sickle-cell	10	9.26%
	Thalassemia	1	0.93%
	Ultra-rare Cancer	1	0.93%
	Von Willebrand's disease	18	16.67%
Grand Total		108	100.00%



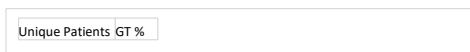
Row Labels	Age Bracket	Unique Patients	GT %
Age 25		5	100.00%
	Hemophilia	2	40.00%
	Malignant Neoplasm/tumor	1	20.00%
	Non-Hodgkin's Lymphoma	1	20.00%
	Von Willebrand's disease	1	20.00%
Grand Total		5	100.00%



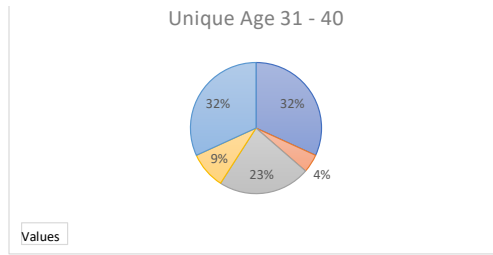
Row Labels	Age Bracket	Unique Patients	GT %
Age 26 - 30		23	100.00%
	Benign Neoplasm/tumor	1	4.35%
	Hemophilia	6	26.09%
	Leukemia	3	13.04%
	Malignant Neoplasm/tumor	6	26.09%
	Non-Hodgkin's Lymphoma	2	8.70%
	Sickle-cell	3	13.04%
	Von Willebrand's disease	2	8.70%
Grand Total		23	100.00%



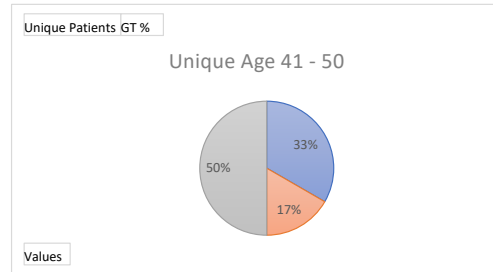
Row Labels	Age Bracket	Unique Patients	GT %
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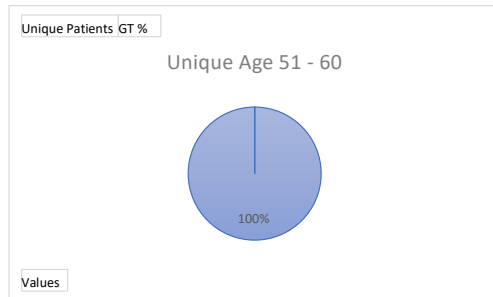
Age 31 - 40	22	100.00%
Hemophilia	7	31.82%
Leukemia	1	4.55%
Malignant Neoplasm/tumor	5	22.73%
Sickle-cell	2	9.09%
Von Willebrand's disease	7	31.82%
Grand Total	22	100.00%



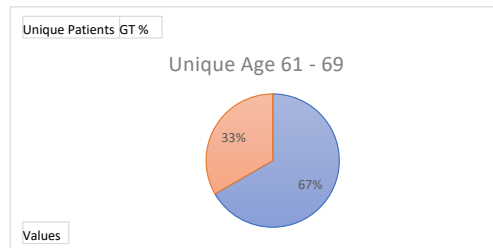
Row Labels	Age Bracket	Unique Patients	GT %
	Age 41 - 50	6	100.00%
	Hemophilia	2	33.33%
	Malignant Neoplasm/tumor	1	16.67%
	Von Willebrand's disease	3	50.00%
Grand Total		6	100.00%



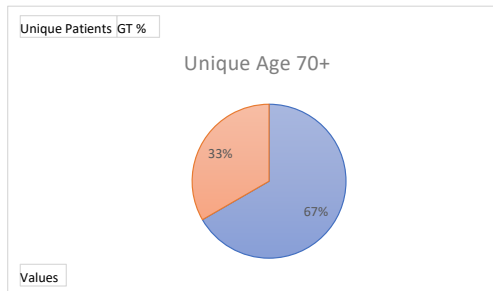
Row Labels	Age Bracket	Unique Patients	GT %
	Age 51 - 60	2	100.00%
	Malignant Neoplasm/tumor	2	100.00%
Grand Total		2	100.00%



Row Labels	Age Bracket	Unique Patients	GT %
	Age 61 - 69	3	100.00%
	Hemophilia	2	66.67%
	Von Willebrand's disease	1	33.33%
Grand Total		3	100.00%

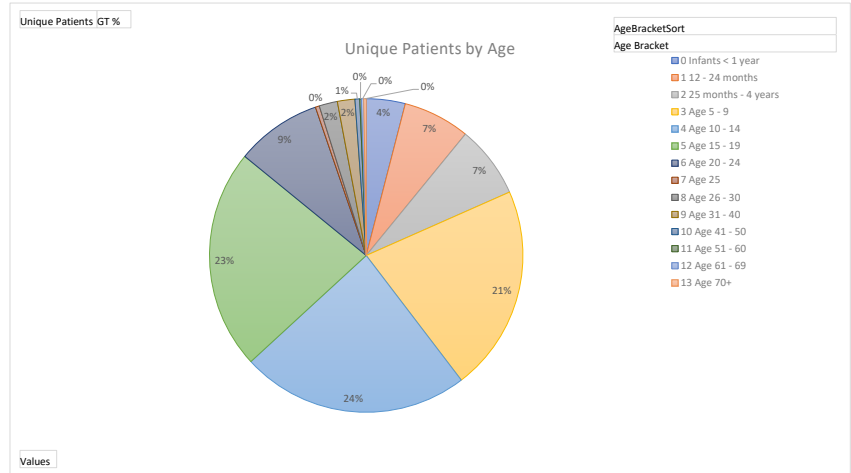


Row Labels	Age Bracket	Unique Patients	GT %
	Age 70+	3	100.00%
	Hemophilia	2	66.67%
	Von Willebrand's disease	1	33.33%
Grand Total		3	100.00%



2020 Rare Diseases by Patient Age

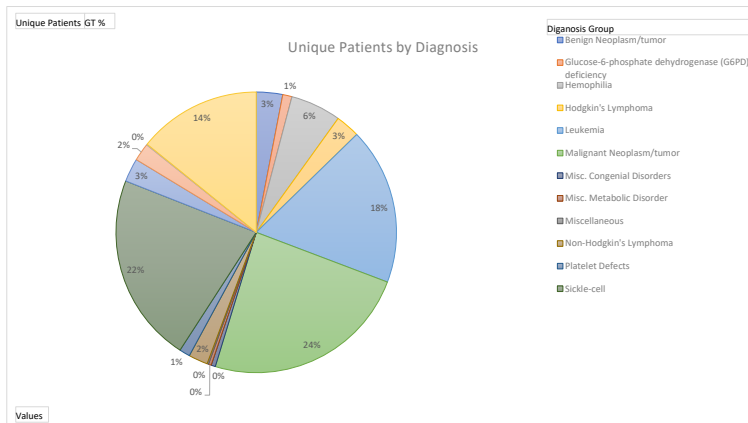
Row Labels	Age Bracket	Unique Patients	GT %
	Infants < 1 year	49	4.02%
	12 - 24 months	84	6.89%
	25 months - 4 years	91	7.47%
	Age 5 - 9	259	21.25%
	Age 10 - 14	287	23.54%
	Age 15 - 19	277	22.72%
	Age 20 - 24	108	8.86%
	Age 25	5	0.41%
	Age 26 - 30	23	1.89%
	Age 31 - 40	22	1.80%
	Age 41 - 50	6	0.49%
	Age 51 - 60	2	0.16%
	Age 61 - 69	3	0.25%
	Age 70+	3	0.25%
Grand Total		1,219	100.00%
	Visits	10,792	



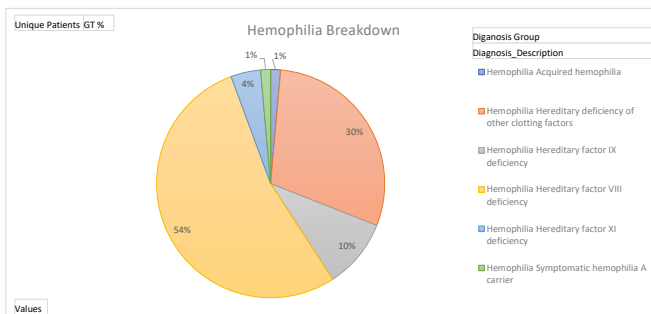
2020 Rare Diseases by Diagnosis

Row Labels	Unique Patients	GT %
Benign Neoplasm/tumor	37	3.04%
Glucose-6-phosphate dehydrogenase (G6PD) deficiency	13	1.07%
Hemophilia	71	5.82%
Hodgkin's Lymphoma	34	2.79%
Leukemia	220	18.05%
Malignant Neoplasm/tumor	292	23.95%
Misc. Congenial Disorders	6	0.49%
Misc. Metabolic Disorder	4	0.33%
Miscellaneous	2	0.16%
Non-Hodgkin's Lymphoma	27	2.21%
Platelet Defects	15	1.23%
Sickle-cell	266	21.82%
Thalassemia	33	2.71%
Thrombocytopenia	25	2.05%
Ultra-rare Cancer	1	0.08%
Von Willebrand's disease	173	14.19%
Grand Total	1,219	100.00%

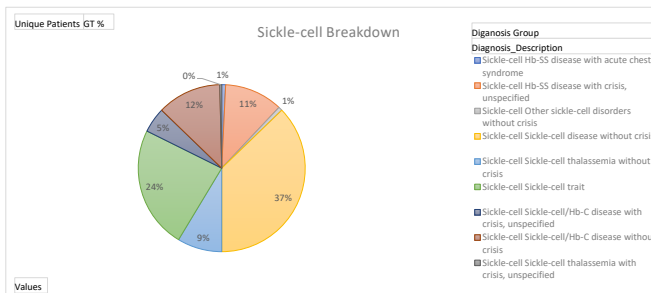
Visits 10,792



Row Labels	Unique Patients	GT %
Hemophilia	71	100.00%
Acquired hemophilia	1	1.41%
Hereditary deficiency of other clotting factors	21	29.58%
Hereditary factor IX deficiency	7	9.86%
Hereditary factor VIII deficiency	38	53.52%
Hereditary factor XI deficiency	3	4.23%
Symptomatic hemophilia A carrier	1	1.41%
Grand Total	71	100.00%



Row Labels	Unique Patients	GT %
Sickle-cell	266	100.00%
Hb-SS disease with acute chest syndrome	2	0.75%
Hb-SS disease with crisis, unspecified	30	11.28%
Other sickle-cell disorders without crisis	2	0.75%
Sickle-cell disease without crisis	99	37.22%
Sickle-cell thalassemia without crisis	23	8.65%
Sickle-cell trait	63	23.68%
Sickle-cell/Hb-C disease with crisis, unspecified	13	4.89%
Sickle-cell/Hb-C disease without crisis	33	12.41%
Sickle-cell thalassemia with crisis, unspecified	1	0.38%
Grand Total	266	100.00%



8/12/2020 0.00	0 M	D57.3	Sickle-cell trait	Sickle-cell	New imports for ICD 10 Mapping	Infants < 1 year	11/16/2020	2214930	0
9/8/2012 0.00	8 M	C71.9	Malignant neoplasm of brain, unspecified	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 5 - 9	11/16/2020	2215680	0
8/7/2020 0.00	0 F	D57.3	Sickle-cell trait	Sickle-cell	New imports for ICD 10 Mapping	Infants < 1 year	11/17/2020	2216720	3
9/20/2009 0.00	11 F	D15.01	Genetic susceptibility to malignant neoplasm of breast	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 10 - 14	11/17/2020	2215980	4
6/28/2003 0.00	17 M	C73	Malignant neoplasm of thyroid gland	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 15 - 19	11/18/2020	2217050	5
12/8/2006 0.00	14 M	C76.1	Malignant neoplasm of thorax	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 10 - 14	11/19/2020	2218090	4
8/24/2003 0.00	17 F	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 15 - 19	11/19/2020	2218280	5
9/28/2020 0.00	0 M	C84.80	Other specified leukemias not having achieved remission	Leukemia	Onc-Leukemias	Infants < 1 year	11/20/2020	2219130	0
8/20/2020 0.00	0 M	D57.3	Sickle-cell trait	Sickle-cell	New imports for ICD 10 Mapping	Infants < 1 year	11/23/2020	2220040	0
3/13/2014 0.00	7 F	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 5 - 9	11/23/2020	2219760	3
4/28/2012 0.00	8 M	C91.00	Acute lymphoblastic leukemia not having achieved remission	Leukemia	Onc-Leukemias	Age 5 - 9	11/23/2020	2220280	3
12/20/2010 0.00	10 F	D57.20	Sickle-cell/Hb-C disease without crisis	Sickle-cell	New imports for ICD 10 Mapping	Age 10 - 14	11/23/2020	2220770	4
1/10/1943 0.00	78 M	D66	Hereditary factor VIII deficiency	Hemophilia	Heme-bleeding	Age 70+	11/23/2020	2224870	13
8/1/2004 0.00	16 M	C71.9	Malignant neoplasm of brain, unspecified	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 15 - 19	11/24/2020	2220450	5
9/17/2020 0.00	0 F	D57.3	Sickle-cell trait	Sickle-cell	New imports for ICD 10 Mapping	Infants < 1 year	11/30/2020	223120	0
1/11/2010 0.00	11 F	D68.2	Hereditary deficiency of other clotting factors	Hemophilia	Heme-bleeding	Age 10 - 14	12/1/2020	2223880	4
1/28/2007 0.00	13 M	C91.00	Acute lymphoblastic leukemia not having achieved remission	Leukemia	Onc-Leukemias	Age 10 - 14	12/1/2020	2223540	4
1/8/2004 0.00	17 M	285.858	Personal history of malignant neoplasm of other endocrine gl	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 15 - 19	12/2/2020	2224970	5
2/13/2010 0.00	11 M	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 10 - 14	12/3/2020	2226540	4
9/5/2019 0.00	1 M	D57.1	Sickle-cell disease without crisis	Sickle-cell	New imports for ICD 10 Mapping	12 - 24 months	12/4/2020	2227110	1
6/9/2010 0.00	10 F	C74.90	Malignant neoplasm of unspecified part of unspecified adrena	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 10 - 14	12/5/2020	2234950	4
9/2/2011 0.00	9 M	C91.00	Acute lymphoblastic leukemia not having achieved remission	Leukemia	Onc-Leukemias	Age 5 - 9	12/7/2020	2227730	3
7/22/2011 0.00	9 M	C40.02	Malignant neoplasm of scapula and long bones of left upper l	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 5 - 9	12/8/2020	2228050	3
5/19/2019 0.00	1 M	C49.9	Malignant neoplasm of connective and soft tissue, unspecif	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	12 - 24 months	12/9/2020	2228680	1
12/27/2012 0.00	8 M	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 5 - 9	12/9/2020	2228540	3
2/12/2003 0.00	18 F	C56.9	Malignant neoplasm of unspecified ovary	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 15 - 19	12/9/2020	2229140	5
4/2/2005 0.00	16 M	285.79	Personal history of other malignant neoplasms of lymphoid, h	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 15 - 19	12/9/2020	2228920	5
12/7/2002 0.00	18 F	C91.01	Acute lymphoblastic leukemia, in remission	Leukemia	Onc-Leukemias	Age 15 - 19	12/9/2020	2228990	5
3/27/1998 0.00	23 M	C81.90	Hodgkin lymphoma, unspecified, unspecified site	Hodgkin's Lymphoma	Onc-Hodgkins Lymphoma	Age 20 - 24	12/9/2020	2228860	6
4/19/1994 0.00	26 M	285.841	Personal history of malignant neoplasm of brain	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 26 - 30	12/9/2020	2228880	8
11/27/1985 0.00	35 F	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 31 - 40	12/9/2020	2228660	9
1/31/2020 0.00	1 M	D57.40	Sickle-cell thalassemia without crisis	Sickle-cell	New imports for ICD 10 Mapping	Infants < 1 year	12/11/2020	2230520	0
9/10/2009 0.00	11 M	C71.9	Malignant neoplasm of brain, unspecified	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 10 - 14	12/11/2020	2230250	4
10/13/2008 0.00	12 M	M72.4	Pseudosarcomatous fibromatosis	Miscellaneous	New imports for ICD 10 Mapping	Age 10 - 14	12/11/2020	2230230	4
2/13/2007 0.00	14 M	D16.9	Benign neoplasm of bone and articular cartilage, unspecified	Benign Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 10 - 14	12/14/2020	2231700	4
3/30/2013 0.00	8 F	C48.9	Malignant neoplasm of connective and soft tissue, unspecif	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 5 - 9	12/15/2020	2232720	3
2/28/2006 0.00	15 F	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 10 - 14	12/15/2020	2233070	4
6/30/2008 0.00	12 M	C85.11	Unspecified B-cell lymphoma, lymph nodes of head, face, and	Non-Hodgkin's Lymphoma	Onc-Lymphomas (Non-Hodgkins)	Age 10 - 14	12/15/2020	2232640	4
6/13/2002 0.00	18 F	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 15 - 19	12/15/2020	2233080	5
2/18/2004 0.00	17 F	D47.3	Essential (hemorrhagic) thrombocythemia	Thrombocythemia	New imports for ICD 10 Mapping	Age 15 - 19	12/15/2020	2233850	5
5/10/2000 0.00	20 M	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 20 - 24	12/15/2020	2232790	6
4/7/1983 0.00	38 M	D66	Hereditary factor VIII deficiency	Hemophilia	Heme-bleeding	Age 31 - 40	12/15/2020	2232660	9
6/17/1955 0.00	65 M	D66	Hereditary factor VIII deficiency	Hemophilia	Heme-bleeding	Age 61 - 69	12/15/2020	2232990	12
6/24/2011 0.00	9 F	D68.2	Hereditary deficiency of other clotting factors	Hemophilia	Heme-bleeding	Age 5 - 9	12/17/2020	2234980	3
11/2/2019 0.00	1 M	C91.00	Acute lymphoblastic leukemia not having achieved remission	Leukemia	Onc-Leukemias	12 - 24 months	12/18/2020	2235200	1
8/29/2018 0.00	2 F	D56.0	Alpha thalassemia	Thalassemia	New imports for ICD 10 Mapping	25 months - 4 years	12/18/2020	2235510	2
10/16/2012 0.00	8 M	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 5 - 9	12/18/2020	2235830	3
6/15/2011 0.00	9 F	D56.0	Alpha thalassemia	Thalassemia	New imports for ICD 10 Mapping	Age 5 - 9	12/18/2020	2235530	3
6/8/2006 0.00	14 F	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 10 - 14	12/18/2020	2235100	4
8/8/2008 0.00	12 F	D57.40	Sickle-cell thalassemia without crisis	Sickle-cell	New imports for ICD 10 Mapping	Age 10 - 14	12/18/2020	2235630	4
1/27/2003 0.00	18 F	D68.2	Hereditary deficiency of other clotting factors	Hemophilia	Heme-bleeding	Age 15 - 19	12/18/2020	2235950	5
11/27/2002 0.00	18 F	D57.40	Sickle-cell thalassemia without crisis	Sickle-cell	New imports for ICD 10 Mapping	Age 15 - 19	12/18/2020	2235620	5
4/14/2006 0.00	14 F	D68.0	Von Willebrand's disease	Von Willebrand's disease	Heme-bleeding	Age 10 - 14	12/21/2020	2236170	4
1/16/2001 0.00	19 M	C80.1	Malignant (primary) neoplasm, unspecified	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 15 - 19	12/21/2020	2236110	5
6/27/2001 0.00	19 F	C82.90	Follicular lymphoma, unspecified, unspecified site	Non-Hodgkin's Lymphoma	Onc-Lymphomas (Non-Hodgkins)	Age 15 - 19	12/21/2020	2236700	5
4/4/2019 0.00	2 F	D49.6	Neoplasm of unspecified behavior of brain	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	12 - 24 months	12/22/2020	2237710	1
11/2/2011 0.00	9 M	C71.9	Malignant neoplasm of brain, unspecified	Malignant Neoplasm/Tumor	New imports for ICD 10 Mapping	Age 5 - 9	12/23/2020	2238600	3
6/2/2020 0.00	0 F	D57.3	Sickle-cell trait	Sickle-cell	New imports for ICD 10 Mapping	Infants < 1 year	12/28/2020	2239120	0
9/25/2007 0.00	13 M	D47.3	Essential (hemorrhagic) thrombocythemia	Thrombocythemia	New imports for ICD 10 Mapping	Age 10 - 14	12/29/2020	2239720	4
3/30/2005 0.00	16 M	D68.2	Hereditary deficiency of other clotting factors	Hemophilia	Heme-bleeding	Age 15 - 19	12/30/2020	2241390	5