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The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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Overview

Date Run: January 21, 2018

Request Description: The purpose of this report was to compare the frequency of diagnoses for lymphoma using International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes. ICD-10-CM code definitions were determined by mapping from ICD-9-CM code definitions using the Centers for Medicare and Medicaid Services (CMS) General Equivalence Mappings (GEMs). Forward-backward mapping (FBM) was used to map ICD-9-CM to ICD-10-CM codes.¹

Sentinel Modular Program Tool Used: Cohort Identification and Descriptive Analysis (CIDA) tool, version 5.1.2

Data Source: This request was run against the IBM® MarketScan® Commercial Claims and Encounters Database and Medicare Supplemental Database, which included 121 million members. Data from October 1, 2010 to September 30, 2016 were included in this report. The report includes three separate time periods: 1) October 1, 2010 to September 30, 2016, 2) April 1, 2015 to September 30, 2015, and 3) April 1, 2016 to September 30, 2016. See Appendix A for the dates of available data used in this report.

Study Design: We examined the prevalence of lymphoma across the ICD-9-CM era (October 2010 to September 2015) and ICD-10-CM era (October 2015 to September 2016) in the US. Incidence was evaluated from April 2015 to September 2015 and April 2016 to September 2016. See Appendix B for specific codes used to define lymphoma in this request.

Cohort Eligibility Criteria: Members included in the cohorts were required to be enrolled in health plans with at least medical coverage. The following age groups were included in the cohorts: 0-44, 45-64, and 65+ years.

Incident Cohorts: Members included in the incident cohorts were required to be continuously enrolled in health plans with at least medical coverage for at least 183 days prior to lymphoma diagnosis, during which gaps in coverage of up to 45 days were allowed. Incident lymphoma was defined as no previous lymphoma diagnosis in the 183 days preceding the index date with respect to ICD-9-CM and ICD-10-CM codes.

Prevalent Cohorts: There was no enrollment time requirement for members in the prevalent cohorts. All qualifying diagnosis codes that occurred between October 1, 2010 and September 30, 2016 were included.

Please see Appendix C for detailed specifications of parameters used in the analyses for this request.

Limitations: Algorithms used to define outcomes are imperfect; thus, it is possible that there may be misclassification. Therefore, data should be interpreted with this limitation in mind. The MarketScan claims databases are based on a large convenience sample. Because the sample is not random, it may contain biases or fail to generalize well to other populations. Data come mostly from large employers; medium and small firms may be underrepresented.²

Notes: Please contact the Sentinel Operations Center Query Fulfillment Team (qf@sentinelssystem.org) for questions and to provide comments/suggestions for future enhancements to this document.

¹Fung, K. W., et al. (2016). "Preparing for the ICD-10-CM Transition: Automated Methods for Translating ICD Codes in Clinical Phenotype Definitions." EGEMS (Wash DC) 4(1): 1211.

²IBM Watson Health (2018). [online] ibm.com. Available at: <https://www.ibm.com/downloads/cas/OWZJ0QO> [Accessed 01 Mar. 2019].

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Glossary of Terms for Analyses Using Cohort Identification and Descriptive Analysis (CIDA) Tool*

Amount Supplied - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.

Blackout Period - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

Care Setting - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). Along with the Principal Diagnosis Indicator, forms the Care Setting/PDX parameter.

Ambulatory Visit (AV) - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

Emergency Department (ED) - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

Inpatient Hospital Stay (IP) - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

Non-Acute Institutional Stay (IS) - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

Other Ambulatory Visit (OA) - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

Cohort Definition (drug/exposure) - indicates how the cohort will be defined: (1): Cohort includes only the first valid treatment episode during the query period; (2): Cohort includes all valid treatment episodes during the query period; (3): Cohort includes all valid treatment episodes during the query period until an event occurs.

Days Supplied - number of days supplied for all dispensings in qualifying treatment episodes.

Eligible Members - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

Enrollment Gap - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

Episodes - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

Episode Gap - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.

Event Deduplication - specifies how events are counted by the MP algorithm: (0): Counts all occurrences of an HOI during an exposure episode; (1): de-duplicates occurrences of the same HOI code and code type on the same day; (2): de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

Exposure Episode Length - number of days after exposure initiation that is considered "exposed time."

Exposure Extension Period - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions days are added after any episode gaps have been bridged.

Lookback Period - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

Maximum Episode Duration - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

Member-Years - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

Minimum Days Supplied - specifies a minimum number of days in length of the days supplied for the episode to be considered.

Minimum Episode Duration - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

Monitoring Period - used to define time periods of interest for both sequential analysis and simple cohort characterization requests.

Principal Diagnosis (PDX) - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

Query Period - period in which the modular program looks for exposures and outcomes of interest.

Treatment Episode Truncation Indicator - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

Washout Period (drug/exposure) - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

Washout Period (event/outcome) - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

Years at Risk - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

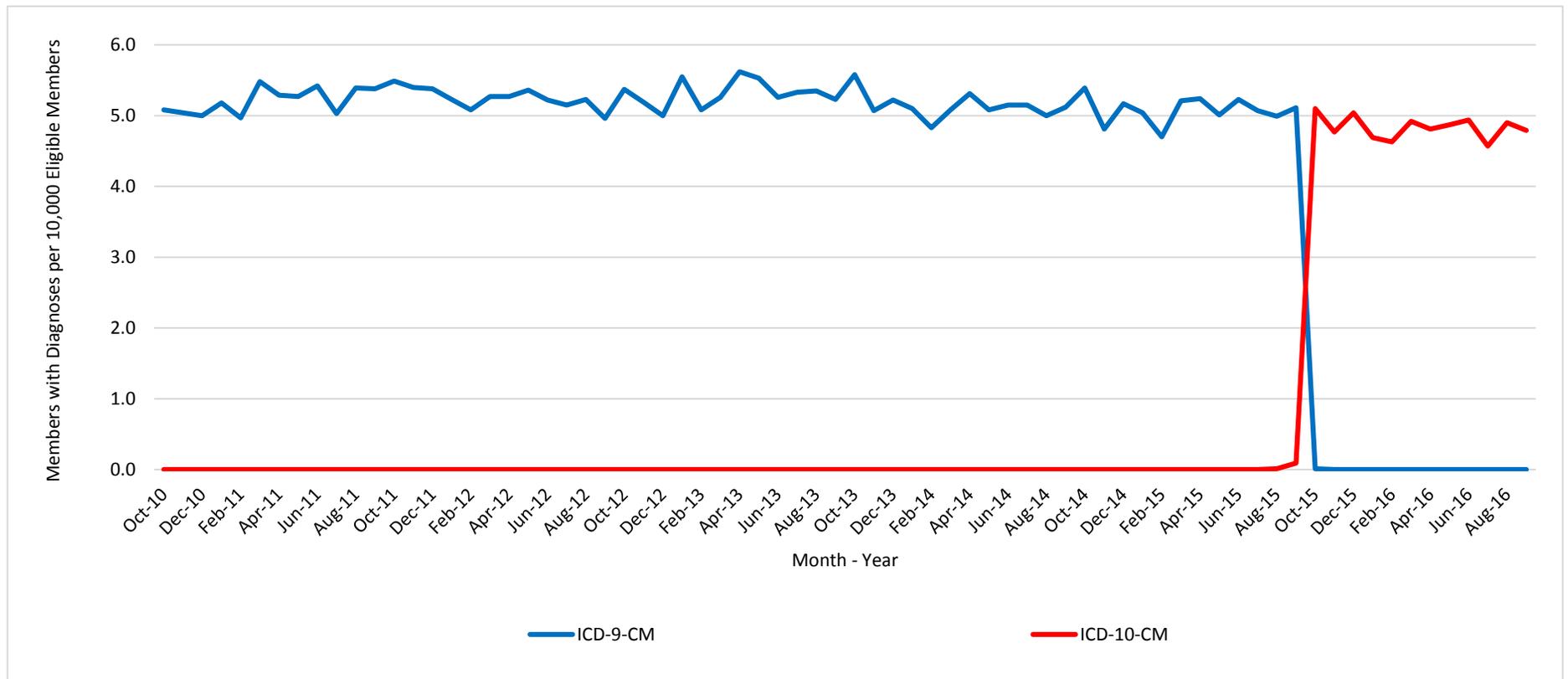
*all terms may not be used in this report

Table 1. Comparison of Incident* Lymphoma Diagnoses in the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Eras (April 1, 2015 - September 30, 2015 and April 1, 2016 - September 30, 2016)

	Members with Diagnosis	Eligible Members	Members with Diagnosis per 10,000 Eligible Members
Lymphoma			
ICD-9-CM: April 1, 2015 - September 30, 2015	14,374	25,648,732	5.6
ICD-10-CM: April 1, 2016 - September 30, 2016	13,170	25,357,598	5.19

* Incidence defined by 183 day washout

Figure 1. Prevalence of Lymphoma Diagnoses per 10,000 Eligible Members from October 2010 - September 2016 by Code Type, 0-Day Washout



Appendix A. Dates Available for IBM® MarketScan® Commercial and Medicare Supplemental Databases

Databases	Start Date	End Date
IBM MarketScan Commercial and Medicare Supplemental Databases ¹	1/1/2010	9/30/2016

¹ The IBM MarketScan Databases includes a sample of 121 million employees, dependents, and retirees in the United States with primary or Medicare supplemental coverage through privately insured fee-for-service, point-of-service, or capitated health plans. The IBM MarketScan claims databases are based on a large convenience sample. Because the sample is not random, it may contain biases or fail to generalize well to other populations. Data come mostly from large employers; medium and small firms may be underrepresented. For more information on the IBM MarketScan Databases, please review the White Paper here: <https://www.ibm.com/downloads/cas/OWZWJ0QO>

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
ICD-9-CM		
200	Lymphosarcoma and reticulosarcoma and other specified malignant tumors of lymphatic tissue	ICD-9-CM
200.00	Reticulosarcoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.0	Reticulosarcoma	ICD-9-CM
200.01	Reticulosarcoma of lymph nodes of head, face, and neck	ICD-9-CM
200.02	Reticulosarcoma of intrathoracic lymph nodes	ICD-9-CM
200.03	Reticulosarcoma of intra-abdominal lymph nodes	ICD-9-CM
200.04	Reticulosarcoma of lymph nodes of axilla and upper limb	ICD-9-CM
200.05	Reticulosarcoma of lymph nodes of inguinal region and lower limb	ICD-9-CM
200.06	Reticulosarcoma of intrapelvic lymph nodes	ICD-9-CM
200.07	Reticulosarcoma of spleen	ICD-9-CM
200.08	Reticulosarcoma of lymph nodes of multiple sites	ICD-9-CM
200.1	Lymphosarcoma	ICD-9-CM
200.10	Lymphosarcoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.11	Lymphosarcoma of lymph nodes of head, face, and neck	ICD-9-CM
200.12	Lymphosarcoma of intrathoracic lymph nodes	ICD-9-CM
200.13	Lymphosarcoma of intra-abdominal lymph nodes	ICD-9-CM
200.14	Lymphosarcoma of lymph nodes of axilla and upper limb	ICD-9-CM
200.15	Lymphosarcoma of lymph nodes of inguinal region and lower limb	ICD-9-CM
200.16	Lymphosarcoma of intrapelvic lymph nodes	ICD-9-CM
200.17	Lymphosarcoma of spleen	ICD-9-CM
200.18	Lymphosarcoma of lymph nodes of multiple sites	ICD-9-CM
200.20	Burkitt's tumor or lymphoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.2	Burkitt's tumor or lymphoma	ICD-9-CM
200.21	Burkitt's tumor or lymphoma of lymph nodes of head, face, and neck	ICD-9-CM
200.22	Burkitt's tumor or lymphoma of intrathoracic lymph nodes	ICD-9-CM
200.23	Burkitt's tumor or lymphoma of intra-abdominal lymph nodes	ICD-9-CM
200.24	Burkitt's tumor or lymphoma of lymph nodes of axilla and upper limb	ICD-9-CM
200.25	Burkitt's tumor or lymphoma of lymph nodes of inguinal region and lower limb	ICD-9-CM
200.26	Burkitt's tumor or lymphoma of intrapelvic lymph nodes	ICD-9-CM
200.27	Burkitt's tumor or lymphoma of spleen	ICD-9-CM
200.28	Burkitt's tumor or lymphoma of lymph nodes of multiple sites	ICD-9-CM
200.3	Marginal zone lymphoma	ICD-9-CM
200.30	Marginal zone lymphoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.31	Marginal zone lymphoma, lymph nodes of head, face, and neck	ICD-9-CM
200.32	Marginal zone lymphoma, intrathoracic lymph nodes	ICD-9-CM
200.33	Marginal zone lymphoma, intra-abdominal lymph nodes	ICD-9-CM
200.34	Marginal zone lymphoma, lymph nodes of axilla and upper limb	ICD-9-CM
200.35	Marginal zone lymphoma, lymph nodes of inguinal region and lower limb	ICD-9-CM
200.36	Marginal zone lymphoma, intrapelvic lymph nodes	ICD-9-CM
200.37	Marginal zone lymphoma, spleen	ICD-9-CM
200.38	Marginal zone lymphoma, lymph nodes of multiple sites	ICD-9-CM
200.40	Mantle cell lymphoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.4	Mantle cell lymphoma	ICD-9-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
200.41	Mantle cell lymphoma, lymph nodes of head, face, and neck	ICD-9-CM
200.42	Mantle cell lymphoma, intrathoracic lymph nodes	ICD-9-CM
200.43	Mantle cell lymphoma, intra-abdominal lymph nodes	ICD-9-CM
200.44	Mantle cell lymphoma, lymph nodes of axilla and upper limb	ICD-9-CM
200.45	Mantle cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-9-CM
200.46	Mantle cell lymphoma, intrapelvic lymph nodes	ICD-9-CM
200.47	Mantle cell lymphoma, spleen	ICD-9-CM
200.48	Mantle cell lymphoma, lymph nodes of multiple sites	ICD-9-CM
200.50	Primary central nervous system lymphoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.5	Primary central nervous system lymphoma	ICD-9-CM
200.51	Primary central nervous system lymphoma, lymph nodes of head, face, and neck	ICD-9-CM
200.52	Primary central nervous system lymphoma, intrathoracic lymph nodes	ICD-9-CM
200.53	Primary central nervous system lymphoma, intra-abdominal lymph nodes	ICD-9-CM
200.54	Primary central nervous system lymphoma, lymph nodes of axilla and upper limb	ICD-9-CM
200.55	Primary central nervous system lymphoma, lymph nodes of inguinal region and lower limb	ICD-9-CM
200.56	Primary central nervous system lymphoma, intrapelvic lymph nodes	ICD-9-CM
200.57	Primary central nervous system lymphoma, spleen	ICD-9-CM
200.58	Primary central nervous system lymphoma, lymph nodes of multiple sites	ICD-9-CM
200.60	Anaplastic large cell lymphoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.6	Anaplastic large cell lymphoma	ICD-9-CM
200.61	Anaplastic large cell lymphoma, lymph nodes of head, face, and neck	ICD-9-CM
200.62	Anaplastic large cell lymphoma, intrathoracic lymph nodes	ICD-9-CM
200.63	Anaplastic large cell lymphoma, intra-abdominal lymph nodes	ICD-9-CM
200.64	Anaplastic large cell lymphoma, lymph nodes of axilla and upper limb	ICD-9-CM
200.65	Anaplastic large cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-9-CM
200.66	Anaplastic large cell lymphoma, intrapelvic lymph nodes	ICD-9-CM
200.67	Anaplastic large cell lymphoma, spleen	ICD-9-CM
200.68	Anaplastic large cell lymphoma, lymph nodes of multiple sites	ICD-9-CM
200.7	Large cell lymphoma	ICD-9-CM
200.70	Large cell lymphoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.71	Large cell lymphoma, lymph nodes of head, face, and neck	ICD-9-CM
200.72	Large cell lymphoma, intrathoracic lymph nodes	ICD-9-CM
200.73	Large cell lymphoma, intra-abdominal lymph nodes	ICD-9-CM
200.74	Large cell lymphoma, lymph nodes of axilla and upper limb	ICD-9-CM
200.75	Large cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-9-CM
200.76	Large cell lymphoma, intrapelvic lymph nodes	ICD-9-CM
200.77	Large cell lymphoma, spleen	ICD-9-CM
200.78	Large cell lymphoma, lymph nodes of multiple sites	ICD-9-CM
200.80	Other named variants, unspecified site, extranodal and solid organ sites	ICD-9-CM
200.8	Other named variants of lymphosarcoma and reticulosarcoma	ICD-9-CM
200.81	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of head, face, and neck	ICD-9-CM
200.82	Other named variants of lymphosarcoma and reticulosarcoma of intrathoracic lymph nodes	ICD-9-CM
200.83	Other named variants of lymphosarcoma and reticulosarcoma of intra-abdominal lymph nodes	ICD-9-CM

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Code	Description	Code Type
200.84	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of axilla and upper limb	ICD-9-CM
200.85	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of inguinal region and lower limb	ICD-9-CM
200.86	Other named variants of lymphosarcoma and reticulosarcoma of intrapelvic lymph nodes	ICD-9-CM
200.87	Other named variants of lymphosarcoma and reticulosarcoma of spleen	ICD-9-CM
200.88	Other named variants of lymphosarcoma and reticulosarcoma of lymph nodes of multiple sites	ICD-9-CM
202.00	Nodular lymphoma, unspecified site, extranodal and solid organ sites	ICD-9-CM
202.0	Nodular lymphoma	ICD-9-CM
202.01	Nodular lymphoma of lymph nodes of head, face, and neck	ICD-9-CM
202.02	Nodular lymphoma of intrathoracic lymph nodes	ICD-9-CM
202.03	Nodular lymphoma of intra-abdominal lymph nodes	ICD-9-CM
202.04	Nodular lymphoma of lymph nodes of axilla and upper limb	ICD-9-CM
202.05	Nodular lymphoma of lymph nodes of inguinal region and lower limb	ICD-9-CM
202.06	Nodular lymphoma of intrapelvic lymph nodes	ICD-9-CM
202.07	Nodular lymphoma of spleen	ICD-9-CM
202.08	Nodular lymphoma of lymph nodes of multiple sites	ICD-9-CM
202.10	Mycosis fungoides, unspecified site, extranodal and solid organ sites	ICD-9-CM
202.1	Mycosis fungoides	ICD-9-CM
202.11	Mycosis fungoides of lymph nodes of head, face, and neck	ICD-9-CM
202.12	Mycosis fungoides of intrathoracic lymph nodes	ICD-9-CM
202.13	Mycosis fungoides of intra-abdominal lymph nodes	ICD-9-CM
202.14	Mycosis fungoides of lymph nodes of axilla and upper limb	ICD-9-CM
202.15	Mycosis fungoides of lymph nodes of inguinal region and lower limb	ICD-9-CM
202.16	Mycosis fungoides of intrapelvic lymph nodes	ICD-9-CM
202.17	Mycosis fungoides of spleen	ICD-9-CM
202.18	Mycosis fungoides of lymph nodes of multiple sites	ICD-9-CM
202.20	Sezary's disease, unspecified site, extranodal and solid organ sites	ICD-9-CM
202.2	Sezary's disease	ICD-9-CM
202.21	Sezary's disease of lymph nodes of head, face, and neck	ICD-9-CM
202.22	Sezary's disease of intrathoracic lymph nodes	ICD-9-CM
202.23	Sezary's disease of intra-abdominal lymph nodes	ICD-9-CM
202.24	Sezary's disease of lymph nodes of axilla and upper limb	ICD-9-CM
202.25	Sezary's disease of lymph nodes of inguinal region and lower limb	ICD-9-CM
202.26	Sezary's disease of intrapelvic lymph nodes	ICD-9-CM
202.27	Sezary's disease of spleen	ICD-9-CM
202.28	Sezary's disease of lymph nodes of multiple sites	ICD-9-CM
202.8	Other malignant lymphomas	ICD-9-CM
202.80	Other malignant lymphomas, unspecified site, extranodal and solid organ sites	ICD-9-CM
202.81	Other malignant lymphomas of lymph nodes of head, face, and neck	ICD-9-CM
202.82	Other malignant lymphomas of intrathoracic lymph nodes	ICD-9-CM
202.83	Other malignant lymphomas of intra-abdominal lymph nodes	ICD-9-CM
202.84	Other malignant lymphomas of lymph nodes of axilla and upper limb	ICD-9-CM
202.85	Other malignant lymphomas of lymph nodes of inguinal region and lower limb	ICD-9-CM

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Code	Description	Code Type
202.86	Other malignant lymphomas of intrapelvic lymph nodes	ICD-9-CM
202.87	Other malignant lymphomas of spleen	ICD-9-CM
202.88	Other malignant lymphomas of lymph nodes of multiple sites	ICD-9-CM
202.90	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue, unspecified site, extranodal and solid organ sites	ICD-9-CM
202.9	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue	ICD-9-CM
202.91	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of head, face, and neck	ICD-9-CM
202.92	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrathoracic lymph nodes	ICD-9-CM
202.93	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intra-abdominal lymph nodes	ICD-9-CM
202.94	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of axilla and upper limb	ICD-9-CM
202.95	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of inguinal region and lower limb	ICD-9-CM
202.96	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of intrapelvic lymph nodes	ICD-9-CM
202.97	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of spleen	ICD-9-CM
202.98	Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue of lymph nodes of multiple sites	ICD-9-CM
ICD-10-CM		
C82.00	Follicular lymphoma grade I, unspecified site	ICD-10-CM
C82.01	Follicular lymphoma grade I, lymph nodes of head, face, and neck	ICD-10-CM
C82.02	Follicular lymphoma grade I, intrathoracic lymph nodes	ICD-10-CM
C82.03	Follicular lymphoma grade I, intra-abdominal lymph nodes	ICD-10-CM
C82.04	Follicular lymphoma grade I, lymph nodes of axilla and upper limb	ICD-10-CM
C82.05	Follicular lymphoma grade I, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.06	Follicular lymphoma grade I, intrapelvic lymph nodes	ICD-10-CM
C82.07	Follicular lymphoma grade I, spleen	ICD-10-CM
C82.08	Follicular lymphoma grade I, lymph nodes of multiple sites	ICD-10-CM
C82.09	Follicular lymphoma grade I, extranodal and solid organ sites	ICD-10-CM
C82.10	Follicular lymphoma grade II, unspecified site	ICD-10-CM
C82.11	Follicular lymphoma grade II, lymph nodes of head, face, and neck	ICD-10-CM
C82.12	Follicular lymphoma grade II, intrathoracic lymph nodes	ICD-10-CM
C82.13	Follicular lymphoma grade II, intra-abdominal lymph nodes	ICD-10-CM
C82.14	Follicular lymphoma grade II, lymph nodes of axilla and upper limb	ICD-10-CM
C82.15	Follicular lymphoma grade II, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.16	Follicular lymphoma grade II, intrapelvic lymph nodes	ICD-10-CM
C82.17	Follicular lymphoma grade II, spleen	ICD-10-CM
C82.18	Follicular lymphoma grade II, lymph nodes of multiple sites	ICD-10-CM
C82.19	Follicular lymphoma grade II, extranodal and solid organ sites	ICD-10-CM
C82.20	Follicular lymphoma grade III, unspecified, unspecified site	ICD-10-CM
C82.21	Follicular lymphoma grade III, unspecified, lymph nodes of head, face, and neck	ICD-10-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
C82.22	Follicular lymphoma grade III, unspecified, intrathoracic lymph nodes	ICD-10-CM
C82.23	Follicular lymphoma grade III, unspecified, intra-abdominal lymph nodes	ICD-10-CM
C82.24	Follicular lymphoma grade III, unspecified, lymph nodes of axilla and upper limb	ICD-10-CM
C82.25	Follicular lymphoma grade III, unspecified, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.26	Follicular lymphoma grade III, unspecified, intrapelvic lymph nodes	ICD-10-CM
C82.27	Follicular lymphoma grade III, unspecified, spleen	ICD-10-CM
C82.28	Follicular lymphoma grade III, unspecified, lymph nodes of multiple sites	ICD-10-CM
C82.29	Follicular lymphoma grade III, unspecified, extranodal and solid organ sites	ICD-10-CM
C82.30	Follicular lymphoma grade IIIa, unspecified site	ICD-10-CM
C82.31	Follicular lymphoma grade IIIa, lymph nodes of head, face, and neck	ICD-10-CM
C82.32	Follicular lymphoma grade IIIa, intrathoracic lymph nodes	ICD-10-CM
C82.33	Follicular lymphoma grade IIIa, intra-abdominal lymph nodes	ICD-10-CM
C82.34	Follicular lymphoma grade IIIa, lymph nodes of axilla and upper limb	ICD-10-CM
C82.35	Follicular lymphoma grade IIIa, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.36	Follicular lymphoma grade IIIa, intrapelvic lymph nodes	ICD-10-CM
C82.37	Follicular lymphoma grade IIIa, spleen	ICD-10-CM
C82.38	Follicular lymphoma grade IIIa, lymph nodes of multiple sites	ICD-10-CM
C82.39	Follicular lymphoma grade IIIa, extranodal and solid organ sites	ICD-10-CM
C82.40	Follicular lymphoma grade IIIb, unspecified site	ICD-10-CM
C82.41	Follicular lymphoma grade IIIb, lymph nodes of head, face, and neck	ICD-10-CM
C82.42	Follicular lymphoma grade IIIb, intrathoracic lymph nodes	ICD-10-CM
C82.43	Follicular lymphoma grade IIIb, intra-abdominal lymph nodes	ICD-10-CM
C82.44	Follicular lymphoma grade IIIb, lymph nodes of axilla and upper limb	ICD-10-CM
C82.45	Follicular lymphoma grade IIIb, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.46	Follicular lymphoma grade IIIb, intrapelvic lymph nodes	ICD-10-CM
C82.47	Follicular lymphoma grade IIIb, spleen	ICD-10-CM
C82.48	Follicular lymphoma grade IIIb, lymph nodes of multiple sites	ICD-10-CM
C82.49	Follicular lymphoma grade IIIb, extranodal and solid organ sites	ICD-10-CM
C82.50	Diffuse follicle center lymphoma, unspecified site	ICD-10-CM
C82.51	Diffuse follicle center lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C82.52	Diffuse follicle center lymphoma, intrathoracic lymph nodes	ICD-10-CM
C82.53	Diffuse follicle center lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C82.54	Diffuse follicle center lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C82.55	Diffuse follicle center lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.56	Diffuse follicle center lymphoma, intrapelvic lymph nodes	ICD-10-CM
C82.57	Diffuse follicle center lymphoma, spleen	ICD-10-CM
C82.58	Diffuse follicle center lymphoma, lymph nodes of multiple sites	ICD-10-CM
C82.59	Diffuse follicle center lymphoma, extranodal and solid organ sites	ICD-10-CM
C82.60	Cutaneous follicle center lymphoma, unspecified site	ICD-10-CM
C82.61	Cutaneous follicle center lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C82.62	Cutaneous follicle center lymphoma, intrathoracic lymph nodes	ICD-10-CM
C82.63	Cutaneous follicle center lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C82.64	Cutaneous follicle center lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C82.65	Cutaneous follicle center lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
C82.66	Cutaneous follicle center lymphoma, intrapelvic lymph nodes	ICD-10-CM
C82.67	Cutaneous follicle center lymphoma, spleen	ICD-10-CM
C82.68	Cutaneous follicle center lymphoma, lymph nodes of multiple sites	ICD-10-CM
C82.69	Cutaneous follicle center lymphoma, extranodal and solid organ sites	ICD-10-CM
C82.80	Other types of follicular lymphoma, unspecified site	ICD-10-CM
C82.81	Other types of follicular lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C82.82	Other types of follicular lymphoma, intrathoracic lymph nodes	ICD-10-CM
C82.83	Other types of follicular lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C82.84	Other types of follicular lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C82.85	Other types of follicular lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.86	Other types of follicular lymphoma, intrapelvic lymph nodes	ICD-10-CM
C82.87	Other types of follicular lymphoma, spleen	ICD-10-CM
C82.88	Other types of follicular lymphoma, lymph nodes of multiple sites	ICD-10-CM
C82.89	Other types of follicular lymphoma, extranodal and solid organ sites	ICD-10-CM
C82.90	Follicular lymphoma, unspecified, unspecified site	ICD-10-CM
C82.91	Follicular lymphoma, unspecified, lymph nodes of head, face, and neck	ICD-10-CM
C82.92	Follicular lymphoma, unspecified, intrathoracic lymph nodes	ICD-10-CM
C82.93	Follicular lymphoma, unspecified, intra-abdominal lymph nodes	ICD-10-CM
C82.94	Follicular lymphoma, unspecified, lymph nodes of axilla and upper limb	ICD-10-CM
C82.95	Follicular lymphoma, unspecified, lymph nodes of inguinal region and lower limb	ICD-10-CM
C82.96	Follicular lymphoma, unspecified, intrapelvic lymph nodes	ICD-10-CM
C82.97	Follicular lymphoma, unspecified, spleen	ICD-10-CM
C82.98	Follicular lymphoma, unspecified, lymph nodes of multiple sites	ICD-10-CM
C82.99	Follicular lymphoma, unspecified, extranodal and solid organ sites	ICD-10-CM
C83.00	Small cell B-cell lymphoma, unspecified site	ICD-10-CM
C83.01	Small cell B-cell lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C83.02	Small cell B-cell lymphoma, intrathoracic lymph nodes	ICD-10-CM
C83.03	Small cell B-cell lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C83.04	Small cell B-cell lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C83.05	Small cell B-cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C83.06	Small cell B-cell lymphoma, intrapelvic lymph nodes	ICD-10-CM
C83.07	Small cell B-cell lymphoma, spleen	ICD-10-CM
C83.08	Small cell B-cell lymphoma, lymph nodes of multiple sites	ICD-10-CM
C83.09	Small cell B-cell lymphoma, extranodal and solid organ sites	ICD-10-CM
C83.10	Mantle cell lymphoma, unspecified site	ICD-10-CM
C83.11	Mantle cell lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C83.12	Mantle cell lymphoma, intrathoracic lymph nodes	ICD-10-CM
C83.13	Mantle cell lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C83.14	Mantle cell lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C83.15	Mantle cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C83.16	Mantle cell lymphoma, intrapelvic lymph nodes	ICD-10-CM
C83.17	Mantle cell lymphoma, spleen	ICD-10-CM
C83.18	Mantle cell lymphoma, lymph nodes of multiple sites	ICD-10-CM
C83.19	Mantle cell lymphoma, extranodal and solid organ sites	ICD-10-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
C83.30	Diffuse large B-cell lymphoma, unspecified site	ICD-10-CM
C83.31	Diffuse large B-cell lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C83.32	Diffuse large B-cell lymphoma, intrathoracic lymph nodes	ICD-10-CM
C83.33	Diffuse large B-cell lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C83.34	Diffuse large B-cell lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C83.35	Diffuse large B-cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C83.36	Diffuse large B-cell lymphoma, intrapelvic lymph nodes	ICD-10-CM
C83.37	Diffuse large B-cell lymphoma, spleen	ICD-10-CM
C83.38	Diffuse large B-cell lymphoma, lymph nodes of multiple sites	ICD-10-CM
C83.39	Diffuse large B-cell lymphoma, extranodal and solid organ sites	ICD-10-CM
C83.50	Lymphoblastic (diffuse) lymphoma, unspecified site	ICD-10-CM
C83.51	Lymphoblastic (diffuse) lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C83.52	Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes	ICD-10-CM
C83.53	Lymphoblastic (diffuse) lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C83.54	Lymphoblastic (diffuse) lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C83.55	Lymphoblastic (diffuse) lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C83.56	Lymphoblastic (diffuse) lymphoma, intrapelvic lymph nodes	ICD-10-CM
C83.57	Lymphoblastic (diffuse) lymphoma, spleen	ICD-10-CM
C83.58	Lymphoblastic (diffuse) lymphoma, lymph nodes of multiple sites	ICD-10-CM
C83.59	Lymphoblastic (diffuse) lymphoma, extranodal and solid organ sites	ICD-10-CM
C83.70	Burkitt lymphoma, unspecified site	ICD-10-CM
C83.71	Burkitt lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C83.72	Burkitt lymphoma, intrathoracic lymph nodes	ICD-10-CM
C83.73	Burkitt lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C83.74	Burkitt lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C83.75	Burkitt lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C83.76	Burkitt lymphoma, intrapelvic lymph nodes	ICD-10-CM
C83.77	Burkitt lymphoma, spleen	ICD-10-CM
C83.78	Burkitt lymphoma, lymph nodes of multiple sites	ICD-10-CM
C83.79	Burkitt lymphoma, extranodal and solid organ sites	ICD-10-CM
C83.80	Other non-follicular lymphoma, unspecified site	ICD-10-CM
C83.81	Other non-follicular lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C83.82	Other non-follicular lymphoma, intrathoracic lymph nodes	ICD-10-CM
C83.83	Other non-follicular lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C83.84	Other non-follicular lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C83.85	Other non-follicular lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C83.86	Other non-follicular lymphoma, intrapelvic lymph nodes	ICD-10-CM
C83.87	Other non-follicular lymphoma, spleen	ICD-10-CM
C83.88	Other non-follicular lymphoma, lymph nodes of multiple sites	ICD-10-CM
C83.89	Other non-follicular lymphoma, extranodal and solid organ sites	ICD-10-CM
C83.90	Non-follicular (diffuse) lymphoma, unspecified, unspecified site	ICD-10-CM
C83.91	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of head, face, and neck	ICD-10-CM
C83.92	Non-follicular (diffuse) lymphoma, unspecified, intrathoracic lymph nodes	ICD-10-CM
C83.93	Non-follicular (diffuse) lymphoma, unspecified, intra-abdominal lymph nodes	ICD-10-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
C83.94	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of axilla and upper limb	ICD-10-CM
C83.95	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of inguinal region and lower limb	ICD-10-CM
C83.96	Non-follicular (diffuse) lymphoma, unspecified, intrapelvic lymph nodes	ICD-10-CM
C83.97	Non-follicular (diffuse) lymphoma, unspecified, spleen	ICD-10-CM
C83.98	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of multiple sites	ICD-10-CM
C83.99	Non-follicular (diffuse) lymphoma, unspecified, extranodal and solid organ sites	ICD-10-CM
C84.00	Mycosis fungoides, unspecified site	ICD-10-CM
C84.01	Mycosis fungoides, lymph nodes of head, face, and neck	ICD-10-CM
C84.02	Mycosis fungoides, intrathoracic lymph nodes	ICD-10-CM
C84.03	Mycosis fungoides, intra-abdominal lymph nodes	ICD-10-CM
C84.04	Mycosis fungoides, lymph nodes of axilla and upper limb	ICD-10-CM
C84.05	Mycosis fungoides, lymph nodes of inguinal region and lower limb	ICD-10-CM
C84.06	Mycosis fungoides, intrapelvic lymph nodes	ICD-10-CM
C84.07	Mycosis fungoides, spleen	ICD-10-CM
C84.08	Mycosis fungoides, lymph nodes of multiple sites	ICD-10-CM
C84.09	Mycosis fungoides, extranodal and solid organ sites	ICD-10-CM
C84.10	Sezary disease, unspecified site	ICD-10-CM
C84.11	Sezary disease, lymph nodes of head, face, and neck	ICD-10-CM
C84.12	Sezary disease, intrathoracic lymph nodes	ICD-10-CM
C84.13	Sezary disease, intra-abdominal lymph nodes	ICD-10-CM
C84.14	Sezary disease, lymph nodes of axilla and upper limb	ICD-10-CM
C84.15	Sezary disease, lymph nodes of inguinal region and lower limb	ICD-10-CM
C84.16	Sezary disease, intrapelvic lymph nodes	ICD-10-CM
C84.17	Sezary disease, spleen	ICD-10-CM
C84.18	Sezary disease, lymph nodes of multiple sites	ICD-10-CM
C84.19	Sezary disease, extranodal and solid organ sites	ICD-10-CM
C84.60	Anaplastic large cell lymphoma, ALK-positive, unspecified site	ICD-10-CM
C84.61	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of head, face, and neck	ICD-10-CM
C84.62	Anaplastic large cell lymphoma, ALK-positive, intrathoracic lymph nodes	ICD-10-CM
C84.63	Anaplastic large cell lymphoma, ALK-positive, intra-abdominal lymph nodes	ICD-10-CM
C84.64	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of axilla and upper limb	ICD-10-CM
C84.65	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of inguinal region and lower limb	ICD-10-CM
C84.66	Anaplastic large cell lymphoma, ALK-positive, intrapelvic lymph nodes	ICD-10-CM
C84.67	Anaplastic large cell lymphoma, ALK-positive, spleen	ICD-10-CM
C84.68	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of multiple sites	ICD-10-CM
C84.69	Anaplastic large cell lymphoma, ALK-positive, extranodal and solid organ sites	ICD-10-CM
C84.70	Anaplastic large cell lymphoma, ALK-negative, unspecified site	ICD-10-CM
C84.71	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of head, face, and neck	ICD-10-CM
C84.72	Anaplastic large cell lymphoma, ALK-negative, intrathoracic lymph nodes	ICD-10-CM
C84.73	Anaplastic large cell lymphoma, ALK-negative, intra-abdominal lymph nodes	ICD-10-CM
C84.74	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of axilla and upper limb	ICD-10-CM
C84.75	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of inguinal region and lower limb	ICD-10-CM
C84.76	Anaplastic large cell lymphoma, ALK-negative, intrapelvic lymph nodes	ICD-10-CM
C84.77	Anaplastic large cell lymphoma, ALK-negative, spleen	ICD-10-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
C84.78	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of multiple sites	ICD-10-CM
C84.79	Anaplastic large cell lymphoma, ALK-negative, extranodal and solid organ sites	ICD-10-CM
C84.90	Mature T/NK-cell lymphomas, unspecified, unspecified site	ICD-10-CM
C84.91	Mature T/NK-cell lymphomas, unspecified, lymph nodes of head, face, and neck	ICD-10-CM
C84.92	Mature T/NK-cell lymphomas, unspecified, intrathoracic lymph nodes	ICD-10-CM
C84.93	Mature T/NK-cell lymphomas, unspecified, intra-abdominal lymph nodes	ICD-10-CM
C84.94	Mature T/NK-cell lymphomas, unspecified, lymph nodes of axilla and upper limb	ICD-10-CM
C84.95	Mature T/NK-cell lymphomas, unspecified, lymph nodes of inguinal region and lower limb	ICD-10-CM
C84.96	Mature T/NK-cell lymphomas, unspecified, intrapelvic lymph nodes	ICD-10-CM
C84.97	Mature T/NK-cell lymphomas, unspecified, spleen	ICD-10-CM
C84.98	Mature T/NK-cell lymphomas, unspecified, lymph nodes of multiple sites	ICD-10-CM
C84.99	Mature T/NK-cell lymphomas, unspecified, extranodal and solid organ sites	ICD-10-CM
C84.A0	Cutaneous T-cell lymphoma, unspecified, unspecified site	ICD-10-CM
C84.A1	Cutaneous T-cell lymphoma, unspecified lymph nodes of head, face, and neck	ICD-10-CM
C84.A2	Cutaneous T-cell lymphoma, unspecified, intrathoracic lymph nodes	ICD-10-CM
C84.A3	Cutaneous T-cell lymphoma, unspecified, intra-abdominal lymph nodes	ICD-10-CM
C84.A4	Cutaneous T-cell lymphoma, unspecified, lymph nodes of axilla and upper limb	ICD-10-CM
C84.A5	Cutaneous T-cell lymphoma, unspecified, lymph nodes of inguinal region and lower limb	ICD-10-CM
C84.A6	Cutaneous T-cell lymphoma, unspecified, intrapelvic lymph nodes	ICD-10-CM
C84.A7	Cutaneous T-cell lymphoma, unspecified, spleen	ICD-10-CM
C84.A8	Cutaneous T-cell lymphoma, unspecified, lymph nodes of multiple sites	ICD-10-CM
C84.A9	Cutaneous T-cell lymphoma, unspecified, extranodal and solid organ sites	ICD-10-CM
C84.Z0	Other mature T/NK-cell lymphomas, unspecified site	ICD-10-CM
C84.Z1	Other mature T/NK-cell lymphomas, lymph nodes of head, face, and neck	ICD-10-CM
C84.Z2	Other mature T/NK-cell lymphomas, intrathoracic lymph nodes	ICD-10-CM
C84.Z3	Other mature T/NK-cell lymphomas, intra-abdominal lymph nodes	ICD-10-CM
C84.Z4	Other mature T/NK-cell lymphomas, lymph nodes of axilla and upper limb	ICD-10-CM
C84.Z5	Other mature T/NK-cell lymphomas, lymph nodes of inguinal region and lower limb	ICD-10-CM
C84.Z6	Other mature T/NK-cell lymphomas, intrapelvic lymph nodes	ICD-10-CM
C84.Z7	Other mature T/NK-cell lymphomas, spleen	ICD-10-CM
C84.Z8	Other mature T/NK-cell lymphomas, lymph nodes of multiple sites	ICD-10-CM
C84.Z9	Other mature T/NK-cell lymphomas, extranodal and solid organ sites	ICD-10-CM
C85.10	Unspecified B-cell lymphoma, unspecified site	ICD-10-CM
C85.11	Unspecified B-cell lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C85.12	Unspecified B-cell lymphoma, intrathoracic lymph nodes	ICD-10-CM
C85.13	Unspecified B-cell lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C85.14	Unspecified B-cell lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C85.15	Unspecified B-cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C85.16	Unspecified B-cell lymphoma, intrapelvic lymph nodes	ICD-10-CM
C85.17	Unspecified B-cell lymphoma, spleen	ICD-10-CM
C85.18	Unspecified B-cell lymphoma, lymph nodes of multiple sites	ICD-10-CM
C85.19	Unspecified B-cell lymphoma, extranodal and solid organ sites	ICD-10-CM
C85.20	Mediastinal (thymic) large B-cell lymphoma, unspecified site	ICD-10-CM
C85.21	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of head, face, and neck	ICD-10-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Lymphoma

Code	Description	Code Type
C85.22	Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes	ICD-10-CM
C85.23	Mediastinal (thymic) large B-cell lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C85.24	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C85.25	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C85.26	Mediastinal (thymic) large B-cell lymphoma, intrapelvic lymph nodes	ICD-10-CM
C85.27	Mediastinal (thymic) large B-cell lymphoma, spleen	ICD-10-CM
C85.28	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of multiple sites	ICD-10-CM
C85.29	Mediastinal (thymic) large B-cell lymphoma, extranodal and solid organ sites	ICD-10-CM
C85.80	Other specified types of non-Hodgkin lymphoma, unspecified site	ICD-10-CM
C85.81	Other specified types of non-Hodgkin lymphoma, lymph nodes of head, face, and neck	ICD-10-CM
C85.82	Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes	ICD-10-CM
C85.83	Other specified types of non-Hodgkin lymphoma, intra-abdominal lymph nodes	ICD-10-CM
C85.84	Other specified types of non-Hodgkin lymphoma, lymph nodes of axilla and upper limb	ICD-10-CM
C85.85	Other specified types of non-Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	ICD-10-CM
C85.86	Other specified types of non-Hodgkin lymphoma, intrapelvic lymph nodes	ICD-10-CM
C85.87	Other specified types of non-Hodgkin lymphoma, spleen	ICD-10-CM
C85.88	Other specified types of non-Hodgkin lymphoma, lymph nodes of multiple sites	ICD-10-CM
C85.89	Other specified types of non-Hodgkin lymphoma, extranodal and solid organ sites	ICD-10-CM
C85.90	Non-Hodgkin lymphoma, unspecified, unspecified site	ICD-10-CM
C85.91	Non-Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck	ICD-10-CM
C85.92	Non-Hodgkin lymphoma, unspecified, intrathoracic lymph nodes	ICD-10-CM
C85.93	Non-Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes	ICD-10-CM
C85.94	Non-Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb	ICD-10-CM
C85.95	Non-Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb	ICD-10-CM
C85.96	Non-Hodgkin lymphoma, unspecified, intrapelvic lymph nodes	ICD-10-CM
C85.97	Non-Hodgkin lymphoma, unspecified, spleen	ICD-10-CM
C85.98	Non-Hodgkin lymphoma, unspecified, lymph nodes of multiple sites	ICD-10-CM
C85.99	Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites	ICD-10-CM
C86.0	Extranodal NK/T-cell lymphoma, nasal type	ICD-10-CM
C86.1	Hepatosplenic T-cell lymphoma	ICD-10-CM
C86.2	Enteropathy-type (intestinal) T-cell lymphoma	ICD-10-CM
C86.3	Subcutaneous panniculitis-like T-cell lymphoma	ICD-10-CM
C86.4	Blastic NK-cell lymphoma	ICD-10-CM
C86.5	Angioimmunoblastic T-cell lymphoma	ICD-10-CM
C86.6	Primary cutaneous CD30-positive T-cell proliferations	ICD-10-CM
C88.4	Extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue [MALT-lymphoma]	ICD-10-CM
C96.4	Sarcoma of dendritic cells (accessory cells)	ICD-10-CM
C96.9	Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified	ICD-10-CM
C96.Z	Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue	ICD-10-CM

Appendix C. Specifications for Parameters for this Request

Sentinel's Cohort Identification and Descriptive Analysis (CIDA) tool, version 5.1.2, was used to compare the frequency of diagnoses for lymphoma using International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes.

Coverage Requirement: At least medical coverage
Enrollment Requirement: 0 days
Enrollment Gap: 45 days
Age Groups: 0-44, 45-64, 65+ years

Scenario	Query Start Date	Query End Date	Event					
			Event	Code Source	Incident with Respect to:	Washout (days)	Cohort Definition	Care Setting
1	4/1/2015	9/30/2015	Lymphoma	ICD-9-CM	ICD-9-CM	183	First valid event only	Any
2	4/1/2016	9/30/2016	Lymphoma	ICD-10-CM	ICD-10-CM	183	First valid event only	Any
3	10/1/2010	9/30/2016	Lymphoma	ICD-9-CM	N/A	0	All valid events	Any
4	10/1/2010	9/30/2016	Lymphoma	ICD-10-CM	N/A	0	All valid events	Any

ICD-9-CM and ICD-10-CM are provided by Optum360. ICD-10-CM codes were mapped from ICD-9-CM codes using the Centers for Medicare and Medicaid Services General Equivalence Mappings.