

## NON-HODGKIN LYMPHOMA

*Includes Follicular, Non-Follicular and Mature T/NK-Cell Lymphomas*

### Background

This case definition was developed by the Armed Forces Health Surveillance Branch (AFHSB) for the purpose of epidemiological surveillance of invasive cancers.

### Clinical Description

Non-Hodgkin lymphomas (NHL) are a large group of cancers of white blood cells. These cancers can occur at any age and are usually characterized by swollen lymph nodes, fever, and weight loss.<sup>1</sup> There are many different types of NHL, usually characterized as either aggressive or indolent, and originating from either B-cells or T-cells. Risk of developing NHL is elevated in persons who receive immune suppressants to prevent organ transplant rejection, people with severe autoimmune conditions, and people infected with human immunodeficiency virus (HIV) and human T-cell leukemia virus type I. Epstein Barr virus causes Burkitt lymphoma and is associated with a number of autoimmune-related NHLs.<sup>2</sup> Prognosis and treatment depend on the stage and type of NHL disease.<sup>1</sup>

### Case Definition and Incidence Rules

For surveillance purposes, a case of non-Hodgkin lymphoma is defined as:

- *One hospitalization* with any of the defining diagnoses of non-Hodgkin lymphoma (see ICD9 and ICD10 code lists below) in the *primary* diagnostic position; or
- *One hospitalization with a V or Z code* indicating a radiotherapy, chemotherapy, or immunotherapy treatment procedure (see ICD9 and ICD10 code lists below) in the *primary* diagnostic position; AND any of the defining diagnoses of non-Hodgkin lymphoma (see ICD9 and ICD10 code lists below) in the *secondary* diagnostic position; or
- *Three or more outpatient medical encounters, occurring within a 90-day period*, with any of the defining diagnoses of non-Hodgkin lymphoma (see ICD9 and ICD10 code list below) in the *primary or secondary* diagnostic position.

#### *Incidence rules:*

For individuals who meet the case definition:

- The incidence date is considered the date of the first hospitalization or outpatient medical encounter that includes a defining diagnosis of non-Hodgkin lymphoma.

*(continued on next page)*

<sup>1</sup> Non-Hodgkin Lymphoma. National Cancer Institute. Available at: <http://www.cancer.gov/cancertopics/types/non-hodgkin>. Accessed May 2018.

<sup>2</sup> American Cancer Society. *Cancer Facts & Figures 2012*. Atlanta: American Cancer Society; 2012.



### Case Definition and Incidence Rules *(continued)*

- An individual is considered an incident case only *once per lifetime*.

#### Exclusions:

- None

### Codes

The following ICD9 and ICD10 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Follicular lymphoma	<i>C82 (follicular lymphoma)</i>	<i>202 (other malignant neoplasms of lymphoid and histiocytic tissue)</i>
	<i>C82.0 (follicular lymphoma grade I...)</i>	<i>202.0 (nodular lymphoma ...)</i>
	- C82.00 (unspecified site)	- 202.00 (nodular lymphoma, unspecified site, extranodal and solid organ sites.)
	- C82.01 (lymph nodes of head, face and neck)	- 202.01 (lymph nodes of head, face and neck)
	- C82.02 (intrathoracic lymph nodes)	- 202.02 (intrathoracic lymph nodes)
	- C82.03 (intra-abdominal lymph nodes)	- 202.03 (intra-abdominal lymph nodes)
	- C82.04 (lymph nodes of axilla and upper limb)	- 202.04 (lymph nodes of axilla and upper limb)
	- C82.05 (lymph nodes of inguinal region and lower limb)	- 202.05 (lymph nodes of inguinal region and lower limb)
	- C82.06 (intrapelvic lymph nodes)	- 202.06 (intrapelvic lymph nodes)
	- C82.07 (spleen)	- 202.07 (spleen)
	- C82.08 (lymph nodes of multiple sites)	- 202.08 (lymph nodes of multiple sites)
	- C82.09 (extranodal and solid organ sites)	- 202.00 (above)
	<i>C82.1 (follicular lymphoma grade II...)</i>	202.0[0-8] (above)
	- C82.10 (unspecified site)	
	- C82.11 (lymph nodes of head, face and neck)	
	- C82.12 (intrathoracic lymph nodes)	
- C82.13 (intra-abdominal lymph nodes)		

- C82.14 (lymph nodes of axilla and upper limb)	
- C82.15 (lymph nodes of inguinal region and lower limb)	
- C82.16 (intrapelvic lymph nodes)	
- C82.17 (spleen)	
- C82.18 (lymph nodes of multiple sites)	
- C82.19 (extranodal and solid organ sites)	
<i>C82.2 (follicular lymphoma grade III...)</i>	202.0[0-8] (above)
- C82.20 (unspecified site)	
- C82.21 (lymph nodes of head, face and neck)	
- C82.22 (intrathoracic lymph nodes)	
- C82.23 (intra-abdominal lymph nodes)	
- C82.24 (lymph nodes of axilla and upper limb)	
- C82.25 (lymph nodes of inguinal region and lower limb)	
- C82.26 (intrapelvic lymph nodes)	
- C82.27 (spleen)	
- C82.28 (lymph nodes of multiple sites)	
- C82.29 (extranodal and solid organ sites)	
<i>C82.3 (follicular lymphoma grade IIIa...)</i>	202.0[0-8] (above)
- C82.30 (unspecified site)	
- C82.31 (lymph nodes of head, face and neck)	
- C82.32 (intrathoracic lymph nodes)	
- C82.33 (intra-abdominal lymph nodes)	
- C82.34 (lymph nodes of axilla and upper limb)	
- C82.35 (lymph nodes of inguinal region and lower limb)	
- C82.36 (intrapelvic lymph nodes)	
- C82.37 (spleen)	

- C82.38 (lymph nodes of multiple sites)	
- C82.39 (extranodal and solid organ sites)	
<i>C82.4 (follicular lymphoma grade IIIb...)</i>	202.0[0-8] (above)
- C82.40 (unspecified site)	
- C82.41 (lymph nodes of head, face and neck)	
- C82.42 (intrathoracic lymph nodes)	
- C82.43 (intra-abdominal lymph nodes)	
- C82.44 (lymph nodes of axilla and upper limb)	
- C82.45 (lymph nodes of inguinal region and lower limb)	
- C82.46 (intrapelvic lymph nodes)	
- C82.47 (spleen)	
- C82.48 (lymph nodes of multiple sites)	
- C82.49 (extranodal and solid organ sites)	
<i>C82.5 (diffuse follicular center lymphoma...)</i>	<i>202.8 (other malignant lymphomas...)</i>
- C82.50 (unspecified site)	- 202.80 (unspecified site, extranodal and solid organ sites)
- C82.51 (lymph nodes of head, face and neck)	- 202.81 (lymph nodes of head, face and neck)
- C82.52 (intrathoracic lymph nodes)	- 202.82 (intrathoracic lymph nodes)
- C82.53 (intra-abdominal lymph nodes)	- 202.83 (intra-abdominal lymph nodes)
- C82.54 (lymph nodes of axilla and upper limb)	- 202.84 (lymph nodes of axilla and upper limb)
- C82.55 (lymph nodes of inguinal region and lower limb)	- 202.85 (lymph nodes of inguinal region and lower limb)
- C82.56 (intrapelvic lymph nodes)	- 202.86 (intrapelvic lymph nodes)
- C82.57 (spleen)	- 202.87 (spleen)
- C82.58 (lymph nodes of multiple sites)	- 202.88 (lymph nodes of multiple sites)
- C82.59 (extranodal and solid organ sites)	- 202.80 (above)
<i>C82.6 (cutaneous follicular center lymphoma...)</i>	202.0[0-8] (above)

- C82.60 (unspecified site)	
- C82.61 (lymph nodes of head, face and neck)	
- C82.62 (intrathoracic lymph nodes)	
- C82.63 (intra-abdominal lymph nodes)	
- C82.64 (lymph nodes of axilla and upper limb)	
- C82.65 (lymph nodes of inguinal region and lower limb)	
- C82.66 (intrapelvic lymph nodes)	
- C82.67 (spleen)	
- C82.68 (lymph nodes of multiple sites)	
- C82.69 (extranodal and solid organ sites)	
<i>C82.8 (other types of follicular center lymphoma...)</i>	202.0[0-8] (above)
- C82.80 (unspecified site)	
- C82.81 (lymph nodes of head, face and neck)	
- C82.82 (intrathoracic lymph nodes)	
- C82.83 (intra-abdominal lymph nodes)	
- C82.84 (lymph nodes of axilla and upper limb)	
- C82.85 (lymph nodes of inguinal region and lower limb)	
- C82.86 (intrapelvic lymph nodes)	
- C82.87 (spleen)	
- C82.88 (lymph nodes of multiple sites)	
- C82.89 (extranodal and solid organ sites)	
<i>C82.9 (follicular lymphoma, unspecified...)</i>	202.0[0-8] (above)
- C82.90 (unspecified site)	
- C82.91 (lymph nodes of head, face and neck)	
- C82.92 (intrathoracic lymph nodes)	
- C82.93 (intra-abdominal lymph nodes)	

	- C82.94 (lymph nodes of axilla and upper limb)	
	- C82.95 (lymph nodes of inguinal region and lower limb)	
	- C82.96 (intrapelvic lymph nodes)	
	- C82.97 (spleen)	
	- C82.98 (lymph nodes of multiple sites)	
	- C82.99 (extranodal and solid organ sites)	
Non-follicular lymphomas	<i>C83 (non-follicular lymphoma)</i>	<i>200 (lymphosarcoma and reticulosarcoma, and other specified malignant tumors of lymphatic tissue)</i>
	<i>C83.0 (small cell B-cell lymphoma...)</i>	<i>200.8 (other named variants of lymphosarcoma and reticulosarcoma...)</i>
	- C83.00 (unspecified site)	- 200.80 (unspecified site, extranodal and solid organ sites)
	- C83.01 (lymph nodes of head, face and neck)	- 200.81 (lymph nodes of head, face and neck)
	- C83.02 (intrathoracic lymph nodes)	- 200.82 (intrathoracic lymph nodes)
	- C83.03 (intra-abdominal lymph nodes)	- 200.83 (intra-abdominal lymph nodes)
	- C83.04 (lymph nodes of axilla and upper limb)	- 200.84 (lymph nodes of axilla and upper limb)
	- C83.05 (lymph nodes of inguinal region and lower limb)	- 200.85 (lymph nodes of inguinal region and lower limb)
	- C83.06 (intrapelvic lymph nodes)	- 200.86 (intrapelvic lymph nodes)
	- C83.07 (spleen)	- 200.87 (spleen)
	- C83.08 (lymph nodes of multiple sites)	- 200.88 (lymph nodes of multiple sites)
	- C83.09 (extranodal and solid organ sites)	- 200.80 (above)
	<i>C83.1 (mantle cell lymphoma...)</i>	<i>200.4 (mantle cell lymphoma...)</i>
	- C83.10 (unspecified site, extranodal and solid organ sites)	- 200.40 (unspecified site, extranodal and solid organ sites)
	- C83.11 (lymph nodes of head, face and neck)	- 200.41 (lymph nodes of head, face and neck)
	- C83.12 (intrathoracic lymph nodes)	- 200.42 (intrathoracic lymph nodes)
	- C83.13 (intra-abdominal lymph nodes)	- 200.43 (intra-abdominal lymph nodes)
	- C83.14 (lymph nodes of axilla and upper limb)	- 200.44 (lymph nodes of axilla and upper limb)

- C83.15 (lymph nodes of inguinal region and lower limb)	- 200.45 (lymph nodes of inguinal region and lower limb)
- C83.16 (intrapelvic lymph nodes)	- 200.46 (intrapelvic lymph nodes)
- C83.17 (spleen)	- 200.47 (spleen)
- C83.18 (lymph nodes of multiple sites)	- 200.48 (lymph nodes of multiple sites)
- C83.19 (extranodal and solid organ site)	
<i>C83.3 (diffuse large B-cell lymphoma...)</i>	<i>200.0 (reticulosarcoma...)</i> <i>200.7 (large cell lymphoma...)</i>
- C83.30 (unspecified site, extranodal and solid organ sites)	- 200.00 (unspecified site, extranodal and solid organ sites) - 200.70 (unspecified site, extranodal and solid organ sites)
- C83.31 (lymph nodes of head, face and neck)	- 200.01 (lymph nodes of head, face and neck) - 200.71 (lymph nodes of head, face and neck)
- C83.32 (intrathoracic lymph nodes)	- 200.02 (intrathoracic lymph nodes) - 200.72 (intrathoracic lymph nodes)
- C83.33 (intra-abdominal lymph nodes)	- 200.03 (intra-abdominal lymph nodes) - 200.73 (intra-abdominal lymph nodes)
- C83.34 (lymph nodes of axilla and upper limb)	- 200.04 (lymph nodes of axilla and upper limb) - 200.74 (lymph nodes of axilla and upper limb)
- C83.35 (lymph nodes of inguinal region and lower limb)	- 200.05 (lymph nodes of inguinal region and lower limb) - 200.75 (lymph nodes of inguinal region and lower limb)
- C83.36 (intrapelvic lymph nodes)	- 200.06 (intrapelvic lymph nodes) - 200.76 (intrapelvic lymph nodes)
- C83.37 (spleen)	- 200.07 (spleen) - 200.77 (spleen)
- C83.38 (lymph nodes of multiple sites)	- 200.08 (lymph nodes of multiple sites) - 200.78 (lymph nodes of multiple sites)
- C83.39 (extranodal and solid organ site)	- 200.00 (above) - 200.70 (above)
<i>C83.5 (lymphoblastic (diffuse) lymphoma...)</i>	<i>200.1 (lymphosarcoma...)</i>

- C83.50 (unspecified site)	- 200.10 (unspecified site, extranodal and solid organ sites)
- C83.51 (lymph nodes of head, face and neck)	- 200.11 (lymph nodes of head, face and neck)
- C83.52 (intrathoracic lymph nodes)	- 200.12 (intrathoracic lymph nodes)
- C83.53 (intra-abdominal lymph nodes)	- 200.13 (intra-abdominal lymph nodes)
- C83.54 (lymph nodes of axilla and upper limb)	- 200.14 (lymph nodes of axilla and upper limb)
- C83.55 (lymph nodes of inguinal region and lower limb)	- 200.15 (lymph nodes of inguinal region and lower limb)
- C83.56 (intrapelvic lymph nodes)	- 200.16 (intrapelvic lymph nodes)
- C83.57 (spleen)	- 200.17 (spleen)
- C83.58 (lymph nodes of multiple sites)	- 200.18 (lymph nodes of multiple sites)
- C83.59 (extranodal and solid organ site)	- 200.10 (above)
<i>C83.7 (Burkitt lymphoma...)</i>	<i>200.2 (Burkitt's tumor or lymphoma...)</i>
- C83.70 (unspecified site)	- 200.20 (unspecified site, extranodal and solid organ sites)
- C83.71 (lymph nodes of head, face and neck)	- 200.21 (lymph nodes of head, face and neck)
- C83.72 (intrathoracic lymph nodes)	- 200.22 (intrathoracic lymph nodes)
- C83.73 (intra-abdominal lymph nodes)	- 200.23 (intra-abdominal lymph nodes)
- C83.74 (lymph nodes of axilla and upper limb)	- 200.24 (lymph nodes of axilla and upper limb)
- C83.75 (lymph nodes of inguinal region and lower limb)	- 200.25 (lymph nodes of inguinal region and lower limb)
- C83.76 (intrapelvic lymph nodes)	- 200.26 (intrapelvic lymph nodes)
- C83.77 (spleen)	- 200.27 (spleen)
- C83.78 (lymph nodes of multiple sites)	- 200.28 (lymph nodes of multiple sites)
- C83.79 (extranodal and solid organ site)	- 200.20 (above)
<i>C83.8 (other non-follicular lymphoma...)</i>	<i>200.3 (marginal zone lymphoma...)</i> <i>200.5 (primary central nervous system lymphoma...)</i>
- C83.80 (unspecified site)	- 200.30 (unspecified site, extranodal and solid organ sites) - 200.50 (unspecified site, extranodal and solid organ sites)



- C83.81 (lymph nodes of head, face and neck)	- 200.31 (lymph nodes of head, face and neck) - 200.51 (lymph nodes of head, face and neck)
- C83.82 (intrathoracic lymph nodes)	- 200.32 (intrathoracic lymph nodes) - 200.52 (intrathoracic lymph nodes)
- C83.83 (intra-abdominal lymph nodes)	- 200.33 (intra-abdominal lymph nodes) - 200.53 (intra-abdominal lymph nodes)
- C83.84 (lymph nodes of axilla and upper limb)	- 200.34 (lymph nodes of axilla and upper limb) - 200.54 (lymph nodes of axilla and upper limb)
- C83.85 (lymph nodes of inguinal region and lower limb)	- 200.35 (lymph nodes of inguinal region and lower limb) - 200.55 (lymph nodes of inguinal region and lower limb)
- C83.86 (intrapelvic lymph nodes)	- 200.36 (intrapelvic lymph nodes) - 200.56 (intrapelvic lymph nodes)
- C83.87 (spleen)	- 200.37 (spleen) - 200.57 (spleen)
- C83.88 (lymph nodes of multiple sites)	- 200.38 (lymph nodes of multiple sites) - 200.58 (lymph nodes of multiple sites)
- C83.89 (extranodal and solid organ site)	- 200.30 (above) - -200.50 (above)
<i>C83.9 (non-follicular (diffuse) lymphoma, unspecified...)</i>	200.8[0-8] (above)
- C83.90 (unspecified site)	
- C83.91 (lymph nodes of head, face and neck)	
- C83.92 (intrathoracic lymph nodes)	
- C83.93 (intra-abdominal lymph nodes)	
- C83.94 (lymph nodes of axilla and upper limb)	
- C83.95 (lymph nodes of inguinal region and lower limb)	
- C83.96 (intrapelvic lymph nodes)	
- C83.97 (spleen)	
- C83.98 (lymph nodes of multiple sites)	

	- C83.99 (extranodal and solid organ site)	
Mature T/NK-cell lymphomas	<i>C84 (mature T/NK cell lymphoma)</i>	--
	<i>C84.0 (mycosis fungoides...)</i>	<i>202.1 (mycosis fungoides...)</i>
	- C84.00 (unspecified site)	- 202.10 (unspecified site, extranodal and solid organ sites)
	- C84.01 (lymph nodes of head, face and neck)	- 202.11 (lymph nodes of head, face and neck)
	- C84.02 (intrathoracic lymph nodes)	- 202.12 (intrathoracic lymph nodes)
	- C84.03 (intra-abdominal lymph nodes)	- 202.13 (intra-abdominal lymph nodes)
	- C84.04 (lymph nodes of axilla and upper limb)	- 202.14 (lymph nodes of axilla and upper limb)
	- C84.05 (lymph nodes of inguinal region and lower limb)	- 202.15 (lymph nodes of inguinal region and lower limb)
	- C84.06 (intrapelvic lymph nodes)	- 202.16 (intrapelvic lymph nodes)
	- C84.07 (spleen)	- 202.17 (spleen)
	- C84.08 (lymph nodes of multiple sites)	- 202.18 (lymph nodes of multiple sites)
	- C84.09 (extranodal and solid organ site)	- 202.10 (above)
	<i>C84.1 (Sezary disease...)</i>	<i>202.2 (Sezary's disease...)</i>
	- C84.10 (unspecified site)	- 202.20 (unspecified site, extranodal and solid organ sites)
	- C84.11 (lymph nodes of head, face and neck)	- 202.21 (lymph nodes of head, face and neck)
	- C84.12 (intrathoracic lymph nodes)	- 202.22 (intrathoracic lymph nodes)
	- C84.13 (intra-abdominal lymph nodes)	- 202.23 (intra-abdominal lymph nodes)
	- C84.14 (lymph nodes of axilla and upper limb)	- 202.24 (lymph nodes of axilla and upper limb)
	- C84.15 (lymph nodes of inguinal region and lower limb)	- 202.25 (lymph nodes of inguinal region and lower limb)
	- C84.16 (intrapelvic lymph nodes)	- 202.26 (intrapelvic lymph nodes)
	- C84.17 (spleen)	- 202.27 (spleen)
	- C84.18 (lymph nodes of multiple sites)	- 202.28 (lymph nodes of multiple sites)
	- C84.19 (extranodal and solid organ site)	- 202.20 (above)
	<i>C84.4 (peripheral T-cell lymphoma, not classified...)</i>	<i>202.7 (peripheral T cell lymphoma...)</i>
	- C84.40 (unspecified site)	- 202.70 (unspecified site, extranodal and solid organ sites)



- C84.41 (lymph nodes of head, face and neck)	- 202.71 (lymph nodes of head, face and neck)
- C84.42 (intrathoracic lymph nodes)	- 202.72 (intrathoracic lymph nodes)
- C84.43 (intra-abdominal lymph nodes)	- 202.73 (intra-abdominal lymph nodes)
- C84.44 (lymph nodes of axilla and upper limb)	- 202.74 (lymph nodes of axilla and upper limb)
- C84.45 (lymph nodes of inguinal region and lower limb)	- 202.75 (lymph nodes of inguinal region and lower limb)
- C84.46 (intrapelvic lymph nodes)	- 202.76 (intrapelvic lymph nodes)
- C84.47 (spleen)	- 202.77 (spleen)
- C84.48 (lymph nodes of multiple sites)	- 202.78 (lymph nodes of multiple sites)
- C84.49 (extranodal and solid organ site)	- 202.70 (above)
<i>C84.6 (anaplastic large cell lymphoma, ALK positive...)</i>	<i>200.6 (anaplastic large cell lymphoma...)</i>
- C84.60 (unspecified site)	- 200.60 (unspecified site, extranodal and solid organ sites)
- C84.61 (lymph nodes of head, face and neck)	- 200.61 (lymph nodes of head, face and neck)
- C84.62 (intrathoracic lymph nodes)	- 200.62 (intrathoracic lymph nodes)
- C84.63 (intra-abdominal lymph nodes)	- 200.63 (intra-abdominal lymph nodes)
- C84.64 (lymph nodes of axilla and upper limb)	- 200.64 (lymph nodes of axilla and upper limb)
- C84.65 (lymph nodes of inguinal region and lower limb)	- 200.65 (lymph nodes of inguinal region and lower limb)
- C84.66 (intrapelvic lymph nodes)	- 200.66 (intrapelvic lymph nodes)
- C84.67 (spleen)	- 200.67 (spleen)
- C84.68 (lymph nodes of multiple sites)	- 200.68 (lymph nodes of multiple sites)
- C84.69 (extranodal and solid organ sites)	- 200.60 (above)
<i>C84.7 (anaplastic large cell lymphoma, ALK negative...)</i>	200.6[0-8] (above)
- C84.70 (unspecified site)	
- C84.71 (lymph nodes of head, face and neck)	
- C84.72 (intrathoracic lymph nodes)	
- C84.73 (intra-abdominal lymph nodes)	

- C84.74 (lymph nodes of axilla and upper limb)	
- C84.75 (lymph nodes of inguinal region and lower limb)	
- C84.76 (intrapelvic lymph nodes)	
- C84.77 (spleen)	
- C84.78 (lymph nodes of multiple sites)	
- C84.79 (extranodal and solid organ sites)	
<i>C84.A (cutaneous T-cell lymphoma, unspecified...)</i>	202.8[0-8] (above)
- C84.A0 (unspecified site)	
- C84.A1 (lymph nodes of head, face and neck)	
- C84.A2 (intrathoracic lymph nodes)	
- C84.A3 (intra-abdominal lymph nodes)	
- C84.A4 (lymph nodes of axilla and upper limb)	
- C84.A5 (lymph nodes of inguinal region and lower limb)	
- C84.A6 (intrapelvic lymph nodes)	
- C84.A7 (spleen)	
- C84.A8 (lymph nodes of multiple sites)	
- C84.A9 (extranodal and solid organ sites)	
<i>C84.Z (other mature T/NK cell lymphomas...)</i>	202.8[0-8] (above)
- C84.Z0 (unspecified site)	
- C84.Z1 (lymph nodes of head, face and neck)	
- C84.Z2 (intrathoracic lymph nodes)	
- C84.Z3 (intra-abdominal lymph nodes)	
- C84.Z4 (lymph nodes of axilla and upper limb)	
- C84.Z5 (lymph nodes of inguinal region and lower limb)	
- C84.Z6 (intrapelvic lymph nodes)	

	<ul style="list-style-type: none"> <li>- C84.Z7 (spleen)</li> <li>- C84.Z8 (lymph nodes of multiple sites)</li> <li>- C84.Z9 (extranodal and solid organ sites)</li> </ul>	
	<p><i>C84.9 (mature T/NK cell lymphomas, unspecified...)</i></p> <ul style="list-style-type: none"> <li>- C84.90 (unspecified site)</li> <li>- C84.91 (lymph nodes of head, face and neck)</li> <li>- C84.92 (intrathoracic lymph nodes)</li> <li>- C84.93 (intra-abdominal lymph nodes)</li> <li>- C84.94 (lymph nodes of axilla and upper limb)</li> <li>- C84.95 (lymph nodes of inguinal region and lower limb)</li> <li>- C84.96 (intrapelvic lymph nodes)</li> <li>- C84.97 (spleen)</li> <li>- C84.98 (lymph nodes of multiple sites)</li> <li>- C84.99 (extranodal and solid organ sites)</li> </ul>	202.8[0-8] (above)
Specified and unspecified non-Hodgkin lymphomas	<p><i>C85 (other specified and unspecified types of non-Hodgkin lymphoma)</i></p> <p><i>C85.1 (unspecified B-cell lymphoma...)</i></p> <ul style="list-style-type: none"> <li>- C85.10 (unspecified site)</li> <li>- C85.11 (lymph nodes of head, face and neck)</li> <li>- C85.12 (intrathoracic lymph nodes)</li> <li>- C85.13 (intra-abdominal lymph nodes)</li> <li>- C85.14 (lymph nodes of axilla and upper limb)</li> <li>- C85.15 (lymph nodes of inguinal region and lower limb)</li> <li>- C85.16 (intrapelvic lymph nodes)</li> <li>- C85.17 (spleen)</li> <li>- C85.18 (lymph nodes of multiple sites)</li> <li>- C85.19 (extranodal and solid organ sites)</li> </ul>	202.8[0-8] (above)

<i>C85.2 (mediastinal (thymic) large B-cell lymphoma...)</i>	202.7[0-8] (above)
- C85.20 (unspecified site)	202.8[0-8] (above)
- C85.21 (lymph nodes of head, face and neck)	
- C85.22 (intrathoracic lymph nodes)	
- C85.23 (intra-abdominal lymph nodes)	
- C85.24 (lymph nodes of axilla and upper limb)	
- C85.25 (lymph nodes of inguinal region and lower limb)	
- C85.26 (intrapelvic lymph nodes)	
- C85.27 (spleen)	
- C85.28 (lymph nodes of multiple sites)	
- C85.29 (extranodal and solid organ sites)	
<i>C85.8 (other specified types of non-Hodgkin lymphoma...)</i>	202.8[0-8] (above)
- C85.80 (unspecified site)	
- C85.81 (lymph nodes of head, face and neck)	
- C85.82 (intrathoracic lymph nodes)	
- C85.83 (intra-abdominal lymph nodes)	
- C85.84 (lymph nodes of axilla and upper limb)	
- C85.85 (lymph nodes of inguinal region and lower limb)	
- C85.86 (intrapelvic lymph nodes)	
- C85.87 (spleen)	
- C85.88 (lymph nodes of multiple sites)	
- C85.89 (extranodal and solid organ sites)	
<i>C85.9 (non-Hodgkin lymphoma, unspecified...)</i>	202.8[0-8] (above)
- C85.90 (unspecified site)	
- C85.91 (lymph nodes of head, face and neck)	

	<ul style="list-style-type: none"> <li>- C85.92 (intrathoracic lymph nodes)</li> <li>- C85.93 (intra-abdominal lymph nodes)</li> <li>- C85.94 (lymph nodes of axilla and upper limb)</li> <li>- C85.95 (lymph nodes of inguinal region and lower limb)</li> <li>- C85.96 (intrapelvic lymph nodes)</li> <li>- C85.97 (spleen)</li> <li>- C85.98 (lymph nodes of multiple sites)</li> <li>- C85.99 (extranodal and solid organ sites)</li> </ul>	
Other specified types of T/NK-cell lymphoma	<p><i>C86 (other specified types of T/NK-cell lymphoma)</i></p> <p>C86.0 (extranodal NK/T-cell lymphoma, nasal type)</p> <p>C86.1 (hepatosplenic T-cell lymphoma)</p> <p>C86.2 (enteropathy-type, intestinal, T-cell lymphoma)</p> <p>C86.3 (subcutaneous panniculitis-like T-cell lymphoma)</p> <p>C86.4 (blastic NK-cell lymphoma)</p> <p>C86.5 (angioimmunoblastic T-cell lymphoma)</p> <p>C86.6 (primary cutaneous CD30-positive T-cell proliferations)</p>	202.8[0-8] (above)
Malignant immunoproliferative diseases and other B-cell lymphomas	<p><i>C88 (malignant immunoproliferative diseases and certain other B-cell lymphomas)</i></p> <p>C88.0 (Waldenstrom macroglobulinemia)</p> <p>C88.2 (heavy chain disease)</p> <p>C88.3 (immunoproliferative small intestinal disease)</p> <p>C88.4 (extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue [ MALT-lymphoma])</p> <p>C88.8 (other malignant immunoproliferative diseases)</p> <p>C88.9 (malignant immunoproliferative disease, unspecified)</p>	<p>200.30 (above)</p> <p>203.80 (other immunoproliferative neoplasm, without mention of having achieved remission)</p> <p>203.81 (other immunoproliferative neoplasms, in remission)</p> <p>273.3 (macroglobulinemia)</p>

Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissues	<i>C96 (other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissues)</i>	<i>202 (other malignant neoplasms of lymphoid and histiocytic tissue)</i>
	C96.Z (other specified malignant neoplasm of lymphoid, hematopoietic and related tissue)	202.9 (other and unspecified malignant neoplasms of lymphoid and histiocytic tissue...)
	C96.9 (malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified)	- 202.90 (unspecified site, extranodal and solid organ sites)
		- 202.91 (lymph nodes of head, face and neck)
		- 202.92 (intrathoracic lymph nodes)
		- 202.93 (intra-abdominal lymph nodes)
		- 202.94 (lymph nodes of axilla and upper limb)
		- 202.95 (lymph nodes of inguinal region and lower limb)
		- 202.96 (intrapelvic lymph nodes)
		- 202.97 (spleen)
- 202.98 (lymph nodes of multiple sites)		

Procedures	ICD-10-CM Codes	ICD-9-CM Codes
Related treatment procedures	Z51.0 (encounter for antineoplastic radiation therapy)	V58.0 (radiotherapy)
<i>(Radiotherapy, chemotherapy, immunotherapy)</i>	Z51.1 (encounter for antineoplastic chemotherapy and immunotherapy)	V58.1 (encounter for chemotherapy and immunotherapy for neoplastic conditions)
	- Z51.11 (encounter for antineoplastic chemotherapy)	- V58.11 (encounter for antineoplastic chemotherapy)
	- Z51.12 (encounter for antineoplastic immunotherapy)	- V58.12 (encounter for antineoplastic immunotherapy)

### Development and Revisions

- In June of 2017 the case definition was updated to include ICD10 codes.
- This case definition was developed in 2010 by the *Medical Surveillance Monthly Report (MSMR)* staff for use in a *MSMR* article on incident diagnoses of cancers,<sup>3</sup> and was developed in collaboration with a working group of subject matter experts from the Office of the Assistant Secretary of Defense for Health Affairs (ASDHA), the United States Army Public Health Command (USAPHC) and the United States Military Cancer Institute. The definition and

<sup>3</sup> Armed Forces Health Surveillance Center. Incident Diagnoses of Cancers and Cancer-related Deaths, Active Component, U.S. Armed Forces, 2000-2011. *Medical Surveillance Monthly Report (MSMR)*. 2012 June; 19(6): 18-22.





classifications used in the case definition are based on the World Health Organization (WHO) Classification of tumors of Hematopoietic and Lymphoid Tissues, 4<sup>th</sup> edition, 2008.<sup>4</sup> The definition was developed based on expert consensus opinion, reviews of the ICD9 and ICD10 codes, the scientific literature, and previous Armed Forces Health Surveillance Center (AFHSC) analyses.

#### *Case Definition and Incidence Rule Rationale*

- Case finding criteria for hospitalizations require one case-defining ICD9 code for non-Hodgkin lymphoma in the *primary* diagnostic position *unless* a code for a related treatment procedure is in the primary diagnostic position; then the case-defining ICD9 code for non-Hodgkin lymphoma is allowed in the *secondary* diagnostic position.
- The case finding criterion of *three or more outpatient medical encounters, within a 90-day period*, with a defining diagnosis of non-Hodgkin lymphoma is used to identify cases that do not meet the other criteria in the definition. Exploratory analysis of the Defense Medical Surveillance System (DMSS) data revealed that this criterion yielded optimal specificity.<sup>5</sup> The period of 90 days was established to allow for the likelihood that “true” cases of non-Hodgkin lymphoma would have second and third encounters within that interval.
- This case definition was developed for a global report on ten different invasive cancers.<sup>1</sup> As such, the same case finding criteria are used for all types of cancer in the report. This broad application of a single case definition may affect the sensitivity and specificity in varying ways for the individual cancers. Furthermore, surgical treatment procedures unique to certain types of cancer are not included in the code set for individual cancers.

#### *Code Set Determination and Rationale*

- The following ICD9 and ICD10 codes were considered by the SMS working group and are included in the code set:

ICD-10-CM Codes	ICD-9-CM Codes
C91.4 (hairy cell leukemia)	202.4x (leukemic reticuloendotheliosis)
C96.0 (multifocal and multisystemic [disseminated] Langerhans-cell histiocytosis)	202.5x (Letterer-Siwe disease)
096.2 (malignant mast cell tumor)	202.6x (malignant mast cell tumors)
C96.4 (sarcoma of dendritic cells, accessory cells)	202.9 (other and unspecified malignant neoplasms of lymphoid tissue and histocytic tissue, unspecified site, extranodal and solid organ sites)
C96.5 (multifocal and unisystemic Langerhans-cell histiocytosis)	277.89 (other specified disorders of metabolism)
C96.6 (unifocal Langerhans-cell histiocytosis)	(continued on next page)
C96.A (histocytic sarcoma)	202.3x (malignant histiocytosis)

<sup>4</sup> WHO Classification of Tumors of Hematopoietic and Lymphoid Tissues , 4<sup>th</sup> edition, S. Swerdlow, E. Campo, N. Lee Harris, E. Jaffe, et. al., IAR C, Lyon, France, 2008.

<sup>5</sup> Detailed information on this analysis is available through AFHSC MSMR staff; reference DMSS Requests #R080127, #R080159, #R090184, #R090302, #R090341, #R100181, and #R100303 (DoD Cancer Incidence), 2008-2009.



- The code set used for the June 2012 MSMR article on cancer did not include ICD9 code 202.7x (peripheral T cell lymphoma). This code is included in this document and will be included in the code set for future analyses.

## **Reports**

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AFHSB reports on non-Hodgkin lymphoma in the following reports:

- Periodic MSMR articles on cancers and cancer-related deaths; most recent October 2016.

## **Review**

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May 2018	Case definition reviewed and updated by the AFHSB Surveillance Methods and Standards (SMS) working group.
June 2017	Case definition reviewed and updated by the AFHSB Surveillance Methods and Standards (SMS) working group.
June 2013	Case definition reviewed and adopted by the AFHSC Surveillance Methods and Standards (SMS) working group.
June 2012	Case definition developed and adopted by the AFHSC MSMR staff.

## **Comments**

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None

