

SEER: 10-Year Relative Survival Rates for Non-Hodgkin Lymphoma subtypes

“Relative survival was developed to provide an objective measure of survival *probability* (not prediction) from cancer controlling for differences in mortality for causes other than cancer. ... The concept of relative survival was developed by comparing the observed survival probability of a group of cancer patients with the survival of a “similar” cancer-free group. Relative survival is defined as the ratio of the observed survival (all cause survival) of a cohort of cancer patients to the expected survival of a comparable set of cancer free individuals. Since a cohort of cancer-free individuals is difficult to obtain, expected life tables representing survival of the general population are used instead.”

Relative survival is defined as the ratio of the observed survival rate in a group of patients, during a specified interval (follow-up period), to the expected survival rate in a population (Ederer, et al. 1961). <http://surveillance.cancer.gov/reports/tech2011.01.pdf>

A simplistic example: in a group of 100 people in the general population who are 65 years of age, 90 may be expected to be alive in 5 years. For a group of 100 people with lymphoma who are 65 years at diagnosis about 60 were alive after 5 years in the collected data. The relative survival in this made up example is 60/90 or 66% at 5 years.

Table 28.4: Non-Hodgkin Lymphoma: Number and Distribution of Cases and 1-, 2-, 3-, 5-, 8-, & 10-Year Relative Survival Rates (%) by Histologic Subtype, Ages 20+, 12 SEER Areas, 1988-2001

http://seer.cancer.gov/publications/survival/surv_nonhodgkin.pdf

Patients with No Evidence of HIV/AIDS: 61,214 Cases

Histology	Relative Survival Rate (%)								
	Cases	Percent	1-Year	2-Year	3-Year	5-Year	8-Year	10-Year	
Total	61,214	100.0	77.5	69.9	65.8	60.0	53.5	50.8	
Small B Lymphocytic Lymphoplasmacytic	4,586	7.5	87.8	82.1	77.2	67.9	55.4	49.5	
Mantle cell	802	1.3	86.0	80.5	74.9	64.6	50.6	45.5	
Mixed small/large diffuse	1,558	2.5	83.9	72.6	65.2	51.1	37.4	34.3	
Large B-cell diffuse, NOS*	2,219	3.6	77.5	68.1	62.4	55.5	49.4	47.7	
Burkitts	22,390	36.6	67.0	57.1	53.8	50.4	47.3	45.9	
Follicular grade 2	508	0.8	53.5	47.8	47.4	45.4	45.1	45.1	
Follicular grade 1	3,701	6.0	94.6	88.5	83.2	75.7	67.1	61.6	
Follicular grade 3	4,649	7.6	95.9	92.2	88.1	79.8	68.4	63.8	
All follicular combined	2,170	3.5	88.5	81.5	76.2	69.2	61.9	60.8	
Marginal zone (9689,9699)	11,784	19.3	93.6	88.2	83.6	75.8	66.3	61.6	
Mycosis fungoides, Sezary	2,646	4.3	93.8	91.6	88.7	83.7	80.6	64.2	
Mature T-cell, NOS* or other	1,815	3.0	97.1	95.1	92.4	88.4	84.5	82.6	
Angioblastic T	725	1.2	61.9	48.8	43.6	38.1	34.3	32.5	
Cutaneous T	144	0.2	61.1	55.4	49.0	38.3	28.4	28.4	
Anaplastic T	738	1.2	92.7	88.8	86.6	84.4	79.8	77.8	
Other specified T	605	1.0	69.0	59.8	56.6	53.9	52.7	43.9	
NK/null T	66	0.1	67.7	64.2	56.1	42.5	33.4	0.0	
Precursor cells Lymphoma, NOS*	75	0.1	53.1	48.1	47.3	40.6	32.2	32.2	
	394	0.6	66.8	49.6	45.6	40.3	38.5	38.0	
	10,159	16.6	70.6	62.9	58.3	51.6	44.7	42.5	

* NOS: Not Otherwise Specified

~ Statistic not displayed due to less than 25

SEER: Lymphoma incidence and Annual Percentage Change (APC) by subtype

http://seer.cancer.gov/csr/1975_2010/results_merged/sect_19_nhl.pdf

Table 19.26
All Lymphoid Neoplasms With Detailed Non-Hodgkin Lymphoma Subtypes^a

SEER^b Incidence Rates and Annual Percent Change by Age at Diagnosis

All Races, Both Sexes, 2001-2010

Site	All Ages			Ages 0-19			Ages 20-64			Ages 65+		
	Rate	Count	APC	Rate	Count	APC	Rate	Count	APC	Rate	Count	APC
Lymphoid Neoplasm	35.3	284,909	0.0	5.8	13,698	0.9	23.5	121,575	-0.5*	157.2	149,636	0.2
1 Hodgkin Lymphoma	2.8	22,863	0.0	1.2	2,866	1.4*	3.2	16,031	-0.4	4.2	3,966	0.9
2 Non-Hodgkin lymphoma	31.4	252,975	0.1	4.6	10,741	0.7	19.7	102,416	-0.4*	146.9	139,818	0.4
2(a) Non-Hodgkin lymphoma, B-cell	28.7	230,958	0.4	3.3	7,765	3.1*	17.7	92,041	-0.2	137.8	131,152	0.6*
2(a) 1. Precursor Non-Hodgkin lymphoma, B-cell	1.2	10,115	3.8*	2.6	6,183	3.7*	0.6	2,995	3.3*	1.0	937	5.5*
2(a) 2. Mature Non-Hodgkin lymphoma, B-cell	26.2	210,631	0.1	0.6	1,486	0.2	16.4	85,544	-0.4*	129.9	123,601	0.3
2(a) 2.1. Chronic/Small/Prolymphocytic/Mantle B-cell Non-Hodgkin lymphoma	6.5	51,856	-1.0*	0.0	26	-	3.2	17,282	-1.6*	36.3	34,548	-0.7
2(a) 2.1.1. Chronic/Small lymphocytic leukemia/lymphoma	5.7	45,684	-1.3*	0.0	22	-	2.8	14,981	-1.8*	32.2	30,681	-1.1*
2(a) 2.1.2. Prolymphocytic leukemia, B-cell	0.0	205	-4.8	-	-	-	0.0	56	-	0.2	145	-4.3
2(a) 2.1.3. Mantle-cell lymphoma	0.7	5,967	1.9*	0.0	0	-	0.4	2,245	0.1	3.9	3,722	2.7*
2(a) 2.2. Lymphoplasmacytic lymphoma/Waldenstrom macroglobulinemia	0.6	4,998	-2.1*	-	-	-	0.3	1,512	-2.6*	3.7	3,483	-2.0*
2(a) 2.2.1. Lymphoplasmacytic lymphoma	0.3	2,217	0.6	-	-	-	0.1	685	-1.8	1.6	1,531	1.5
2(a) 2.2.2. Waldenstrom macroglobulinemia	0.4	2,781	-4.3*	-	-	-	0.2	827	-3.2*	2.1	1,952	-4.6*
2(a) 2.3. Diffuse large B-cell lymphoma (DLBCL)	6.9	55,208	0.2	0.3	641	-0.1	4.6	23,822	-0.6*	32.3	30,745	0.7*
2(a) 2.3.1. DLBCL, NOS ^c	6.8	54,735	0.1	0.3	622	-0.8	4.6	23,446	-0.9*	32.2	30,667	0.7*
2(a) 2.3.2. Intravascular large B-cell lymphoma	0.0	61	-	0.0	0	-	0.0	25	-	0.0	36	-
2(a) 2.3.3. Primary effusion lymphoma	0.0	84	-	0.0	0	-	0.0	64	-	0.0	20	-
2(a) 2.3.4. Mediastinal large B-cell lymphoma	0.0	328	15.0*	0.0	19	-	0.1	287	15.0*	0.0	22	-
2(a) 2.4. Burkitt lymphoma/leukemia	0.4	3,345	1.3	0.3	666	-0.2	0.4	1,930	3.1*	0.8	749	-1.4
2(a) 2.5. Marginal-zone lymphoma (MZL)	1.9	15,060	2.2*	0.0	74	-	1.2	6,327	1.0*	9.1	8,659	2.9*
2(a) 2.5.1. Splenic MZL	0.2	1,266	1.2	0.0	0	-	0.1	498	-1.0	0.8	768	2.4
2(a) 2.5.2. Extranodal MZL, MALT ^c type	1.1	9,105	1.4*	0.0	52	-	0.8	4,086	0.7	5.2	4,967	1.8*
2(a) 2.5.3. Nodal MZL	0.6	4,689	4.0*	0.0	22	-	0.3	1,743	2.1	3.1	2,924	5.0*
2(a) 2.6. Follicular lymphoma	3.7	29,905	0.2	0.0	67	-	3.0	15,400	-0.6	15.2	14,438	1.0
2(a) 2.7. Hairy-cell leukemia	0.3	2,432	-1.0	0.0	0	-	0.3	1,531	-1.2	0.9	901	-0.7
2(a) 2.8. Plasma cell neoplasms	6.0	47,785	0.5	-	-	-	3.4	17,723	0.4	31.6	30,053	0.5
2(a) 2.8.1. Plasmacytoma	0.4	3,055	2.1*	-	-	-	0.3	1,528	1.3	1.6	1,520	2.9*
2(a) 2.8.2. Multiple myeloma/plasma-cell leukemia	5.6	44,730	0.3	-	-	-	3.1	16,195	0.4	30.0	28,533	0.3
2(a) 2.9. Heavy chain disease	0.0	42	-	0.0	0	-	0.0	17	-	0.0	25	-
2(a) 3. Non-Hodgkin lymphoma, B-cell, NOS ^c	1.3	10,212	3.6*	0.0	96	-	0.7	3,502	1.7	6.9	6,614	4.5*

^a The APC is the Annual Percent Change over the time interval.
Morton LM, Turner JJ, Cerhan JR, Linet MS, Treseler PA, Clarke CA, Jack A, Cozen W, Maynadié M, Spinelli JJ, Costantini AS, Rüdiger T, Scarpa A, Zheng T, Weisenburger DD. Proposed classification of lymphoid neoplasms for epidemiologic research from the Pathology Working Group of the International Lymphoma Epidemiology Consortium (InterLymph). *Blood*. 2007;110:695-708.

^b SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

^c NOS = Not otherwise specified. MALT = Mucosa-associated lymphoid tissue. NK = Natural killer.

* The APC is significantly different from zero (p<.05).

- Statistic not shown. Rate based on less than 16 cases for the time interval.
Trend based on less than 10 cases for at least one year within the time interval.