

STUDY TO DETERMINE WHETHER PATIENTS WITH LYMPHOMA ARE EVALUATED AND TREATED ACCORDING TO NATIONAL TREATMENT GUIDELINES (NCCN)

Background: According to the American Cancer Society 2014 Cancer Facts and Figures while incidence rates of both Hodgkin and Non-Hodgkin Lymphoma remained stable for women, it increased slightly for men. There will be an estimated 79,000 lymphoma cases in the United States with 70,800 being Non-Hodgkin Lymphoma. Males will account for 38,270 cases while females will represent 32,530 cases. The number of deaths is expected to be 10,470 for males and 8,520 for females for total United States deaths of 18,990. Ohio is estimated to have 2,860 cases of Non-Hodgkin Lymphoma, with an expected 810 deaths. The incidence rates for Ohio 2006-2009 is 23.0 for males and 16.1 for females while it is 23.3 for males and 16.3 for females in the United States 2006-2010. Death rates in Ohio 2006-2010 is 9.2 males and 5.6 females and for the United States 8.2 males and 5.1 females

(<http://www.cancer.org/research/cancerfactsstatistics/cancerfactsfigures2014/index>).

Chart 1: Comparison of Lymphoma Death Rates in Ohio and the Nation

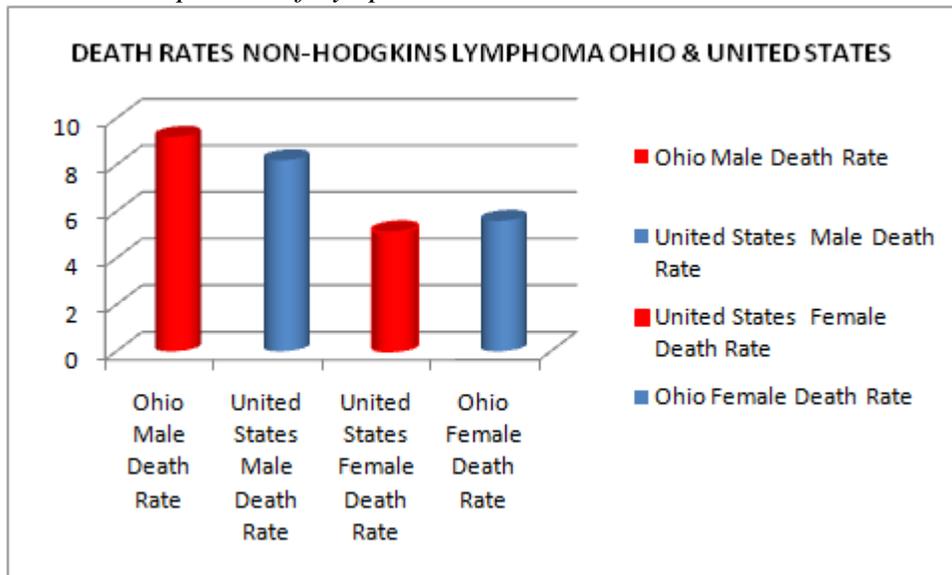


Table 1: Estimated Number of New Lymphoma Cases and Deaths by Sex, US, 2014*

	Estimated Number* of New Cancer Cases and Deaths by Sex, US, 2014					
	Both Sexes	Estimated New Cases		Estimated Deaths		
		Male	Female	Both Sexes	Male	Female
Lymphoma	79,990	43,340	36,650	20,170	11,140	9,030
Hodgkin lymphoma	9,190	5,070	4,120	1,180	670	510
Non-Hodgkin lymphoma	70,800	38,270	32,530	18,990	10,470	8,520

When looking at Ohio Cancer Incidence and Surveillance Data for 2012 which is the most recent year that actual numbers are available, there were 2,442 Non-Hodgkin Lymphoma cases. Overall deaths in Ohio for 2012 were 870. Tables 2-4 highlight more specific 2012 data related to lymphoma cases and death rates (http://www.healthy.ohio.gov/~media/HealthyOhio/ASSETS/Files/comprehensive%20cancer/Cancer%20Report%202015_May2015.pdf).

Table 2: Number of Cancer Deaths and Age-adjusted Mortality Rates by Lymphoma Type and Sex in Ohio 2012

	Male		Female		Total	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
Hodgkin Lymphoma	25	0.4	20	0.3	45	0.3
Non-Hodgkin Lymphoma	476	8.3	390	5	870	6.4

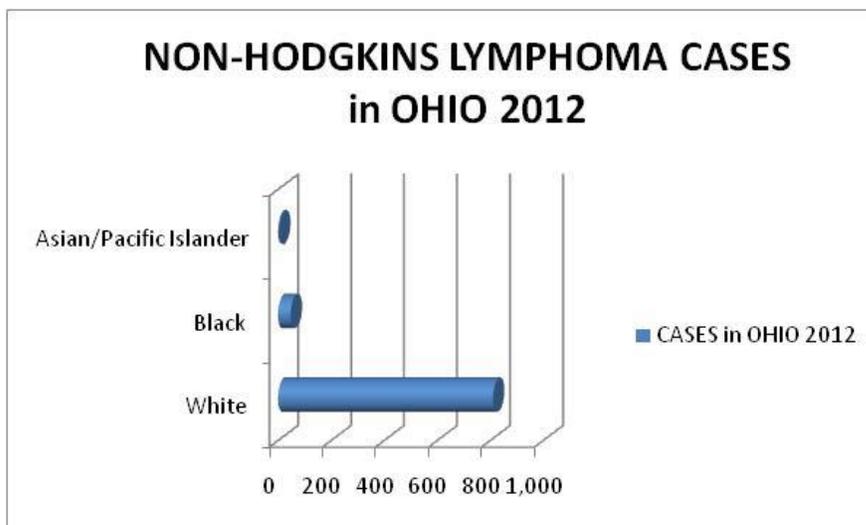
For Non-Hodgkin Lymphoma when compared to the 2006-2010 data the death rates are declining.

Table 3: Number of New Invasive Cancer Cases and Age-adjusted Incidence Rates by Lymphoma Type and Race in Ohio 2012

	White		Black	Asian/Pacific Islander		
	Cases	Rates	Cases	Rates	Cases	Rates
Hodgkin Lymphoma	248	2.5	35	2.4	5	2.7
Non-Hodgkin Lymphoma	2,198	18.3	168	12.1	25	15.8

When looking at race and ethnicity, rates in new cases of Non-Hodgkin Lymphoma, the rate is highest in Whites, followed by Asian/Pacific Islanders, then African Americans.

Chart 2: Number of New Lymphoma Cases by Race in Ohio 2012



Ohio 2012 incidence rates were 6.6 for Whites, 3.8 for Blacks, and rates were suppressed for Asian/Pacific Islanders since count was less than 5.

According to National Comprehensive Cancer Network (NCCN) Guidelines Version 1.2015 the workup requires “physical examination with attention to node-bearing areas, including Waldeyer’s ring, size of liver and spleen, performance status, B symptoms, CBC, differential, platelets, comprehensive metabolic panel, hepatitis B testing if CD20 monoclonal antibody contemplated, MUGA scan/echocardiogram if anthracycline – or anthracenedione-based regimen is indicated, Pregnancy testing in women of child-bearing age (if chemotherapy planned)”.
(http://www.nccn.org/professionals/physician_gls/pdf/nhl.pdf).

Study Topic: Study To Determine Whether Patients With Non-Hodgkin Lymphoma Are Evaluated And Treated According To National Treatment Guidelines (NCCN).

Criteria for Evaluation: All 2014 lymphoma cases will be evaluated, excluding class of case 00, or those cases diagnosed at SJMC but all first course of treatment done elsewhere. Cases will be evaluated for compliance according to NCCN Guidelines by Dr. Chang.

Data Analysis: There were 21 Lymphoma cases entered into the SJMC cancer registry in 2014. There were 11 patients diagnosed at SJMC and all treatment was performed elsewhere or class of case 00, 9 patients were diagnosed at SJMC and part of the first course treatment performed at SJMC and 1 patient was diagnosed elsewhere and part of first course treatment at SJMC (class of case 21). There will be 10 patients who will be evaluated to determine if treatment was provided according to NCCN guidelines. Of the 10 patients. There are 1 stage II (Malignant lymphoma follicular NOS), 1 stage IIA (Hodgkin's disease nodular sclerosis NOS), 1 stage III (Malignant lymphoma follicular NOS), 1 stage IIIA (Malignant lymphoma small cleaved cell follicular) and 6 stage IV (3 CLL, 1 Malignant lymphoma large cell diffuse NOS and 2 Malignant lymphoma follicular NOS).

Summary of Findings:

All cases were evaluated and treated according to national standard guidelines, including those patients appropriately treated utilizing observation.

Recommendations: Consider replicating the study in 5 years or one year after there are any significant changes to NCCN guidelines