

# Incidence and disease prevalence for lymphoid neoplasms in Poland

Krzysztof Giannopoulos 

Department of Experimental Hematooncology, Medical University of Lublin, Lublin, Poland

Department of Hematology, St. John's Cancer Centre, Lublin, Poland

The incidence and prevalence of lymphoid neoplasms would appear to be on the increase due to population aging and the introduction of new treatment modalities in these diseases. However, finding support for such a general remark based on data from registers is very challenging, not only worldwide but specifically in Poland.

The aim of the authors of the article entitled “Incidence and prevalence of lymphatic neoplasms in Poland 2009–2015 determined on analysis of National Health Fund data used in the ‘Maps of healthcare needs – database of systemic and implementation analyses’ project” published in the current issue of “Acta Haematologica Polonica”, was to analyze data from the Polish national healthcare provider (Narodowy Fundusz Zdrowia) [1]. This unique methodology may overcome some limitations inherent in the National Cancer Registry (Krajowy Rejestr Nowotworowy), which was created to collect and analyze data mainly from patients with solid tumors. The most common lymphoid malignancies were analyzed at national and regional levels. It was previously pointed out that there has been underrepresentation of the incidence of mantle cell lymphoma (MCL) and of follicular lymphoma (FL). For instance, in 2006, the calculated prevalence of MCL and FL was c.0.6 per 100,000 per year [2]. This figure is much lower than that found in other Western countries, and this has led experts to speculate as to possible differences in the prevalence between Poland and other European countries. Here, the calculated incidence rate for FL in 2014 was 1.74 per 100,000 per year, which is not much less than the 2.18 per 100,000 per year found in the European HAEMACARE study [3]. In the register of the British Hematological Malignancy Research Network (HMRN), the incidence rate of FL in 2004–2014 was 3.23 per 100,000 per year [4], and according to SEER (the Surveillance, Epidemiology and End Results program of the

US National Cancer Institute), the standardized incidence rate was 2.7 per 100,000 per year [5]. Interestingly, in the US using statistical models for analysis, the age-adjusted rate for new FL cases fell by on average 1.9% per year between 2009 and 2018. The rate of new cases of diffuse large B-cell lymphoma (DLBCL) was 3.76 per 100,000 men and women in 2014 in Poland. Updated SEER results show DLBCL to have a higher incidence of 5.6 cases per 100,000 per year. Very interesting data has been generated for the incidence of chronic lymphocytic leukemia (CLL) in Poland. The 8.65 cases per 100,000 per year recorded in 2014 was much higher than that reported in recent years in the US (e.g. 4.6 per 100,000 per year in 2019) even though the number of CLL cases fell by on average 1.8% each year between 2009 and 2018. Age-adjusted death rates were stable over the same period. Globally, in contrast, the proportion of CLL cases more than doubled between 1990 and 2017 [6]. The greatest increase in CLL patients was detected in East Asia, followed by Southeast Asia and Eastern Europe. In Europe, the highest incidence was observed in the UK (5.27 per 100,000 per year). The incidence of multiple myeloma (MM) was 4.92 per 100,000 per year in 2014, with 1,900 new cases. Using a similar methodology, we identified more than 2,000 new patients in 2016 [7]. In SEER, the rate of new MM cases was 7.1 per 100,000 men and women per year. The numbers in the US seem to have been stable over the period 2009–2018, with age-adjusted death rates falling by on average 1.0% each year 2010–2019.

These differences in the incidences around the world are interesting, but significant discrepancies across Europe might also point to unmet medical needs in the proper registry of patients with hematological malignancies in Poland.

\*Address for correspondence: Krzysztof Giannopoulos, Department of Experimental Hematooncology, Medical University of Lublin, Chodzki 1, 20–093 Lublin, Poland, phone +48 81 448 66 32, faks + 48 81 448 66 34, e-mail: krzysztof.giannopoulos@gmail.com

Received: 20.02.2022

Accepted: 20.02.2022

This article is available in open access under Creative Commons Attribution-Non-Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) license, allowing to download articles and share them with others as long as they credit the authors and the publisher, but without permission to change them in any way or use them commercially.

## Authors' contributions

KG — sole author.

## Conflicts of interest

None.

## Financial support

None.

## Ethics

The work described in this article has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans; EU Directive 2010/63/EU for animal experiments; Uniform requirements for manuscripts submitted to biomedical journals.

## References

1. Marańda E, Budziszewska BK, Mikołajczyk T, et al. Incidence and prevalence of lymphatic neoplasms in Poland 2009–2015 determined on analysis of National Health Fund data used in the 'Maps of healthcare needs — database of systemic and implementation analyses' project. *Acta Haematol Pol.* 2022; 2(53): 112–132, doi: [10.5603/AHP.2022.0011](https://doi.org/10.5603/AHP.2022.0011).
2. Jurczak W, Walewski J. Mantle cell lymphoma — optimal therapy choice based on clinical trial results. *Onkol Prakt Klin.* 2007; 3(5): 254–258.
3. Sant M, Allemani C, Tereanu C, et al. HAEMACARE Working Group. Incidence of hematologic malignancies in Europe by morphologic subtype: results of the HAEMACARE project. *Blood.* 2010; 116(19): 3724–3734, doi: [10.1182/blood-2010-05-282632](https://doi.org/10.1182/blood-2010-05-282632), indexed in Pubmed: [20664057](https://pubmed.ncbi.nlm.nih.gov/20664057/).
4. Smith A, Crouch S, Lax S, et al. Lymphoma incidence, survival and prevalence 2004–2014: sub-type analyses from the UK's Haematological Malignancy Research Network. *Br J Cancer.* 2015; 112(9): 1575–1584, doi: [10.1038/bjc.2015.94](https://doi.org/10.1038/bjc.2015.94), indexed in Pubmed: [25867256](https://pubmed.ncbi.nlm.nih.gov/25867256/).
5. Surveillance, Epidemiology, and End Results (SEER) Program. National Cancer Institute, DCCPS, Surveillance Research Program, released December 2020. [www.seer.cancer.gov](http://www.seer.cancer.gov) (February 20, 2022).
6. Dong Y, Shi O, Zeng Q, et al. Leukemia incidence trends at the global, regional, and national level between 1990 and 2017. *Exp Hematol Oncol.* 2020; 9: 14, doi: [10.1186/s40164-020-00170-6](https://doi.org/10.1186/s40164-020-00170-6), indexed in Pubmed: [32577323](https://pubmed.ncbi.nlm.nih.gov/32577323/).
7. <https://ezdrowie.gov.pl/portal/home/zdrowe-dane/raporty/szpiczak-plazmocytowy> (February 20, 2022).