Barriers to Treatment for Patients with Lymphoma across Europe: Upper Middle Income versus High Income Countries

O. Bamigbola[1] , N. Dren[1] and L. Warwick[2] / 1. Lymphoma Coalition, Research, Mississauga, ON, Canada | 2. Lymphoma Coalition, Management, Mississauga, ON, Canada

LYMPHOMA COALITION

Final Publication Number: 844P

INTRODUCTION

Despite development of novel treatments and updated guidelines in lymphoma care, inequities in access to care across economies remains a global challenge.

This study uses the Lymphoma Coalition (LC) 2020 Global Patient Survey (GPS) on Lymphomas and CLL to examine the differences in barriers to treatment for patients with lymphoma in Europe by country income groups.

METHODS

Study design

- This study is a sub-analysis of the LC 2020 GPS, which is an online global survey of patients with lymphoma and CLL, carried out every two years
- The LC 2020 GPS was hosted on a third-party portal from January- March 2020 in 19 languages

Respondents

- Globally, 11,878 respondents from 90+ countries (9,179 patients and 2,699 caregivers), including **4,343 patients from 37 European countries,** took part in LC 2020 GPS
- The European countries that had patient respondents were grouped into two categories according to the World Bank country classification by income: **Upper Middle-Income Countries (UMIC) and High-Income Countries (HIC) groups.**

Table 1. List of European countries that had patient respondents for the LC 2020 GPS, grouped by income

Country groups by income (GNI per capital)	Countries
Upper-middle-income (UMIC) (n=230 patients)	Albania, Bosnia and Herzegovina, Bulgaria, Georgia, Turkey and Serbia
High-income (HIC) (n=4113 patients)	Andorra, Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom

Statistical analysis

- The demographics of both groups were examined, and univariate, bivariate, and multivariate analyses of questions relating to barriers to receiving treatment and healthcare financing of common lymphoma treatments were performed in IBM SPSS v27.

RESULTS

The two country groups (UMIC; HIC) were similar in their distribution of sex and educational level. **(Table 2).** However, they differed significantly in age, area of residence and subtype. **(Table 2).**

Table 2. Demographic comparison between the two country income groups

	UMIC (N=230) Count (%)	HIC (N=4113) Count (%)	Chi square (p-value)
Age Range (years)			
18-29	33 (15)	189 (5)	147.8
30-39	58 (26)	412 (10)	P=0.0001
40-59	92 (41)	1365 (34)	
60-69	25 (11)	1134 (28)	
70	15 (7)	962 (24)	
Sex			
Female	147 (64)	2376 (58)	3.38
Male	83 (36)	1737 (42)	P=0.07
Educational level			
None	0 (0)	5 (0)	6.9
Primary (Elementary)	3 (1)	129 (3)	P=0.23
Secondary (High-school)	81 (35)	1299 (32)	
Post-Secondary (College/ University)	102 (44)	1789 (43)	
Postgraduate (Master, PhD)	44 (19)	836 (20)	
Prefer not to say	0 (0)	55 (1)	
Area of residence			
City	201 (87)	1797 (44)	168.82
Suburban	17 (7)	862 (21)	P=0.01
Rural	12 (5)	1454 (35)	
Lymphoma Subtype			
*CLL/SLL	41 (18)	1120 (27)	105.1
Burkitts	3 (1)	19 (1)	P <0.001
Diffuse Large B-cell lymphoma (DLBCL)	45 (20)	419 (10)	
DLBCL germinal centre B-cell (GCB)	3 (1)	27 (1)	
DLBCL activated B-cell (ABC)	2 (1)	51 (1)	
Follicular	20 (9)	613 (15)	
Hodgkin's	81 (35)	698 (17)	
*MALT/Marginal zone	6 (3)	65 (2)	
Mantle cell	3 (1)	116 (3)	
Peripheral T-cell	3 (1)	23 (1)	
Anaplastic large cell	1 (0)	22 (1)	
Extranodal natural killer T-cell	0 (0)	4 (0)	
Transformed	3 (1)	51 (1)	
*WM/LPL	4 (2)	394 (10)	
Cutaneous	2 (1)	21 (1)	
Mycosis Fungoides	3 (1)	69 (2)	
Sezary syndrome	0 (0)	13 (0)	
Other indolent	3 (1)	164 (4)	
Other aggressive	2 (1)	123 (3)	
Don't Know	5 (2)	101 (3)	

*CLL/SLL- chronic lymphocytic leukaemia/small lymphocytic lymphoma; *MALT-mucosa-associated lymphoid tissue; *WM/LPL- Waldenstrõm's macrogloblinaemia/lymphoplasmacytic lymphoma

RESULTS (cont.)

Patients from HIC were more likely than UMIC patients to report experiencing no treatment barriers but were less likely to report experiencing financial difficulties, difficulty accessing up-to-date treatments and long treatment waiting time **(Table 3).**

Table 3. Barriers to receiving treatment by country income groups

	UMIC Count (%)	HIC Count (%	*Adjusted OR (95% CI) (p-value)
Barriers to receiving treatment			
Financial difficulties	10 **(7)**	40 **(2)**	**0.36 (0.16-0.78) p=0.01**
Access to the most up to date treatment	11 **(8)**	58 **(2)**	**0.24 (0.11- 0.53) p<0.01**
Treatment waiting times	11 **(8)**	60 **(2)**	**0.25 (0.12-0,53) p<0.01**
None	98 **(75)**	2165 **(89)**	**2.90 (1.83-4.61) p<0.01**
Financing for lymphoma treatment**			
Paid in full by govt or insurance	141 **(84)**	2306 **(95)**	**2.32 (1.32-4.09) p=0.004**
Paid partially out of pocket	21 **(13)**	129 **(5)**	Ref group

*Adjustments done for age, area of residence and subtype; UMIC as reference group
**Question asked to patients on chemotherapy alone, immunotherapy alone and chemoimmunotherapy

When asked how their treatment was paid for, HIC patients who had been treated or who were currently being treated for lymphoma with either chemoimmunotherapy or chemotherapy alone or immunotherapy alone were 2.3 times more likely than patients from UMIC to have had their treatment paid in full by government or insurance than to have paid for it partially out-of-pocket (95% CI-1.32-4.09), p=0.004.

CONCLUSION

Patients with lymphoma differ in how they experience 'barriers to care' across economic groups in Europe and more effort is required to ensure equitable access to lymphoma care.

LC advocates equitable access to care for all patients with lymphoma regardless of where they reside.

DISCLOSURES AND CONTACT INFORMATION

Study was sponsored by Pfizer Inc, AbbVie Corporation and Takeda Oncology. **None of the authors benefited personally from the research. None of the authors has any conflicts of interest to declare.**

For further details on the LC 2020 GPS, please scan the QR code or visit **https://lymphomacoalition.org/global-patient-survey/.**

Please direct any queries to the research department at Lymphoma Coalition:
funmi@lymphomacoalition.org or **lorna@lymphomacoaliton.org.**