Poster #4424

Physician Treatment Preferences in Relapsed/Refractory Follicular Lymphoma: A Discrete Choice Experiment

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BACKGROUND

- Follicular lymphoma (FL) is an indolent form of non-Hodgkin lymphoma with limited treatment options at disease progression[1]
- Innovative treatments (e.g., bispecific antibodies and chimeric antigen receptor T-cell therapy) recently emerged as available therapies, each with novel safety and management profiles[2-4]
- Contemporary research evaluating physician treatment preferences in relapsed or refractory (r/r) FL is limited

OBJECTIVES

To identify key treatment attributes that influence physicians' treatment decisions, as they related to patients with r/r FL

METHODS

- A cross-sectional, multi-country, online survey was administered, between May-August 2023, to physicians from the United States (US), United Kingdom (UK), Brazil, Japan, Germany, and France
- Physicians were currently treating patients with FL, treated cancer patients for 3-40 years, and treated ≥ 5 patients with FL in the past 6 months
- A focused literature review and qualitative interviews informed the development of 2 discrete choice experiments (DCE)—one for 2nd line (2L) and one for 3rd line (3L) therapy—that were included in the online survey to assess treatment preferences
  - Physicians selected, in a series of choice tasks (**Figure 1**), between 2 hypothetical profiles that varied on 7 attributes associated with treatment for r/r FL: progression-free survival (PFS), overall survival at 5 years (OS), serious adverse events (AE), cytokine release syndrome (CRS), neurological AEs, fatigue, and administration/impact (**Figure 2**)
- Preference weights were estimated using hierarchical Bayesian modeling; the absolute difference in the highest and lowest preference weight for each attribute indicated the magnitude of influence on physician preferences; Relative attribute importance was estimated to reflect variation in preferences were explained by each attribute

Figure 1. Example choice task

Assuming everything else to be the same about the options below, which would you most prefer to prescribe as second-line treatment for a patient with relapsed or refractory follicular lymphoma?

FL does not worsen for an average of 1 year 8 months	FL does not worsen for an average of 3 year 9 months
65 out of 100 patients live an additional 5 years	55 out of 100 patients live an additional 5 years
45 out of 100 patients have a serious side effect that may need to be treated in the hospital	25 out of 100 patients have a serious side effect that may need to be treated in the hospital
0 out of 100 patients experience inflammation throughout the body… These side effects last an average of one week.	78 out of 100 patients experience inflammation throughout the body… These side effects last an average of one week.
30 out of 100 patients experience impacts on brain functioning… These effects last an average of 11 days.	56 out of 100 patients experience impacts on brain functioning… These effects last an average of 11 days.
25 out of 100 patients experience fatigue	0 out of 100 patients experience fatigue
The patient receives IV infusion during an outpatient visit 2 days every 4 weeks for 6 months.	Blood is collected from the patient. The patient receives IV infusion and remains in the hospital for 2-3 weeks. After 3-6 months patients return to normal functioning.
SELECT	SELECT

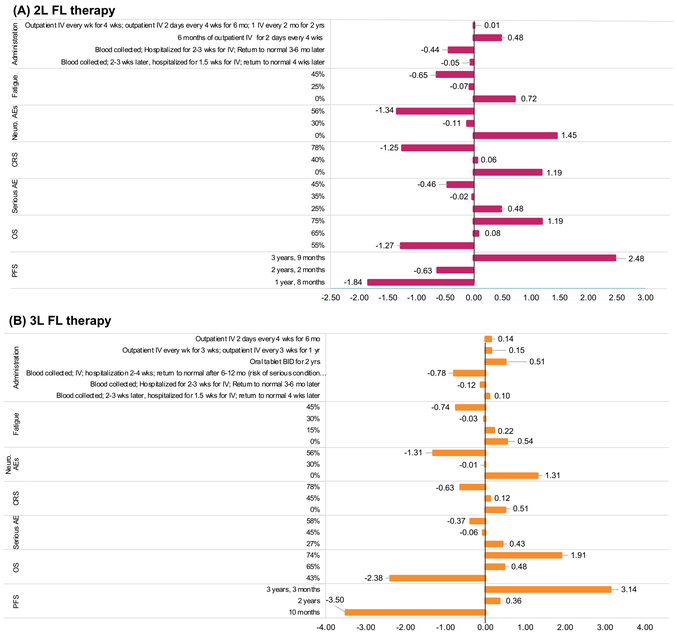
RESULTS

Table 1. Sociodemographic, clinical, and patient characteristics of physicians (N=300)

	Overall (N=300)	US (n=50)	UK (n=50)	France (n=50)	Germany (n=50)	Brazil (n=50)	Japan (n=50)
Age in years [Mean (SD)]	46.8 (9.6)	48.3 (12.3)	48.0 (7.8)	47.6 (7.5)	48.6 (8.0)	39.2 (7.8)	48.7 (9.9)
Practice Setting [n (%)]							
Academic	137 (45.7%)	15 (30.0%)	39 (78.0%)	23 (46.0%)	27 (54.0%)	16 (32.0%)	17 (34.0%)
Community	163 (54.3%)	35 (70.0%)	11 (22.0%)	27 (54.0%)	23 (46.0%)	34 (68.0%)	33 (66.0%)
Years of clinical experience treating FL [Mean (SD)]	14.7 (7.8)	14.7 (8.9)	12.9 (5.7)	15.0 (7.5)	14.8 (6.3)	10.5 (6.4)	20.3 (8.3)
Specialty*							
Medical oncology	60 (20.0%)	17 (34.0%)	9 (18.0%)	10 (20.0%)	12 (24.0%)	8 (16.0%)	4 (8.0%)
Hematology oncology	189 (63.0%)	40 (80.0%)	39 (78.0%)	23 (46.0%)	43 (86.0%)	34 (68.0%)	10 (20.0%)
Hematology	107 (35.7%)	6 (12.0%)	13 (26.0%)	22 (44.0%)	8(16.0%)	19 (38.0%)	39 (78.0%)
Number of FL patients treated in the past 6 months (Mean; SD)	43.3 (55.1)	42.4 (37.2)	65.3 (88.5)	42.4 (56.6)	39.6 (39.5)	47.6 (56.8)	22.3 (17.9)
Proportion of patients with FL by age [Mean % (SD)]							
20 years of age or younger	1.7 (4.1)	2.7 (5.4)	2.3 (4.7)	1.4 (3.6)	1.6 (3.6)	2.1 (4.3)	0.1 (0.7)
21-30 years of age	4.1 (6.5)	5.6 (7.1)	5.9 (7.8)	3.9 (5.7)	3.1 (4.3)	4.9 (8.2)	1.0 (3.5)
31-40 years of age	8.6 (8.2)	9.9 (8.4)	11.2 (9.2)	8.0 (6.1)	8.5 (7.3)	10.5 (9.8)	3.7 (5.2)
41-50 years of age	15.9 (10.5)	16.5 (10.7)	18.4 (12.8)	14.8 (7.6)	15.5 (7.3)	19.5 (11.8)	10.7 (9.3)
51-60 years of age	24.6 (11.4)	23.3 (7.9)	21.9 (10.3)	26.7 (10.3)	25.0 (10.3)	28.8 (15.6)	21.6 (11.1)
61-70 years of age	25.4 (12.5)	25.8 (12.9)	22.0 (11.2)	26.6 (13.3)	27.2 (13.3)	21.1 (12.0)	29.8 (10.3)
>70 years of age	19.8 (15.3)	16.3 (13.2)	18.3 (13.0)	18.6 (12.7)	19.2 (13.0)	13.1 (11.2)	33.1 (19.6)
Number of treated patients with FL by line of therapy within past 6 months [Mean (SD)]							
1L	42.3 (16.5)	43.7 (16.5)	41.8 (15.9)	40.0 (13.5)	41.9 (16.3)	42.6 (14.3)	43.7 (21.5)
2L	26.6 (9.3)	26.8 (8.3)	26.1 (6.3)	26.5 (9.2)	27.3 (8.4)	26.1 (8.3)	26.6 (14.0)
3L	19.2 (18.1)	15.8 (8.7)	15.5 (7.5)	17.6 (8.5)	17.3 (7.9)	16.5 (7.8)	14.8 (8.4)
4L	7.6 (7.3)	8.2 (7.2)	8.3 (7.1)	9.5 (7.6)	7.7 (6.9)	6.8 (6.7)	5.3 (8.1)
Not treated yet	7.3 (13.1)	5.5 (11.4)	8.2 (14.8)	6.5 (9.0)	5.8 (8.7)	8.1 (13.4)	9.5 (18.7)

*Respondents could select all that apply so proportion may not sum to 100%

Figure 2. Mean attribute preference weights in the aggregate sample: 2L and 3L Settings

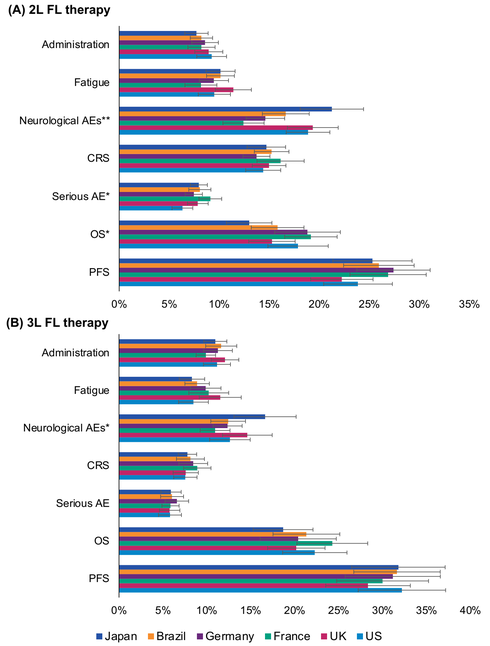


Abbreviations: 2L= second line of therapy; 3L = third line of therapy; BID = "bis in die" twice daily; CI = Confidence Interval; CRS= Cytokine Release Syndrome; IV= intravenous; OS= overall survival at 5 years; PFS=progression free survival; SE = Standard Error; Neuro = Neurological
Note: Preference weights should not be interpreted by themselves. Instead, the magnitude of change within one attribute should be compared to change within another attribute; All preference weights of levels within an attribute sum to 0.

Characteristics of Participating Physicians (N=300) (Table 1)

- The average number of years of clinical experience treating patients with FL ranged from 10.5 (Brazil) to 20.3 (Japan)
- Slightly more physicians (54%) practiced in a community setting, on average, though physicians in the UK and Germany were more likely to practice in an academic setting
- On average, physicians from the UK and Brazil reported the highest mean number of FL patients treated in the past 6 months (65.3 and 47.6, respectively)
- Most (>69%) of the physicians' patients with FL were >50 years of age, with Japan physicians treating the highest proportion over age 50 (84.5%)

Figure 3. Attribute relative attribute importance by country



Abbreviations: 2L= second line of therapy; 3L = third line of therapy; CRS= Cytokine Release Syndrome; OS= overall survival at 5 years; PFS=progression free survival
Note: p-values summarize tests for-differences in attribute relative importance across countries; *p <0.05; **p<0.001; estimates sum to 100% within country

Physician Treatment Preferences (Figure 2)

- On average, increasing PFS had the greatest influence on treatment preferences, regardless of treatment line
- 2L Preferences (**Figure 2; Panel A**)
  - Reducing risk of neurological AE from 56% to 0% was the second most important attribute, followed by increasing OS from 55% to 75% at 5 years, and reducing the risk of CRS from 78% to 0%
- 3L Preferences (**Figure 2; Panel B**)
  - Increasing OS from 43% to 74% at 5 years was second most important, followed by reducing the risk of neurological AEs from 56% to 0% and reducing risk of CRS from 78% to 0%

Relative Importance of Treatment Attributes

- Potential country-specific differences in relative importance were observed:
  - In the 2L setting (**Figure 3; Panel A**), after PFS, increasing OS at 5 years was 2nd most important in FR and DE, whereas reducing risk of neurological AEs was 2nd most important in the UK and JP
  - In the 3L setting (**Figure 3; Panel B**), improvements in both PFS and OS were valued even more highly relative to reducing AEs compared to the 2L setting across countries

LIMITATIONS

- Physicians were recruited via convenience sampling; thus, preferences reported here may not generalize to the broader population of physicians who treat r/r FL within their respective geographies
- The DCE presents hypothetical treatment profiles and therefore may not capture the nuance involved in making treatment decisions for r/r FL patients

CONCLUSIONS

- *An evolving treatment landscape for r/r FL necessitates greater understanding of physician treatment preferences in each line of therapy; despite variation between countries, results suggest physician preferences were most influenced by PFS, OS, and avoiding neurological AEs, particularly in the 2L setting*
- *Findings show physicians not only value longer survival, they also value having a longer progression-free time in both 2L and 3L; this may be due to greater peace of mind, better quality of life, less need to start new treatments, or other factors.*
- *Side effects were more heavily considered at 2L, suggesting that when patients have more options, early in their disease, physicians prefer a balanced treatment profile in terms of PFS/OS/AE risk; with disease progression to 3L, PFS and OS become increasingly important*

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DISCLOSURES

KK, KB, LK, FM, KP, PO were employees of Cerner Enviza, an Oracle, which was hired by Kite, a Gilead Company to oversee study design and execution; MR, SB, TB, GB and AP are employees and stockholders of Kite, a Gilead Company