PCR289

A Qualitative Assessment on Geographical Transferability of Patient Preferences: Targeted Literature Review of Multi-Country Oncology Studies

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Objective

- To identify similarities and differences in patients' cancer treatment preferences between the US and Europe

Conclusions

- Trends in treatment preferences for oncology patients were mostly similar across geographies
  - In 4 of the 5 studies, benefits were more important than risks as a treatment attribute for both geographical subgroups examined
- More research is needed in this space to understand how patient preference insights can be applicable to other countries and populations
- Authors should publish all subgroups tested, even if no differences are detected

Background

- Key regulatory bodies such as the European Medicines Agency, US Food and Drug Administration, and health technology assessment bodies have cited the importance of patient treatment preferences and indicated willingness to consider these preferences in their decision-making processes[1-3]
- Currently, there is a lack of research on the transferability of patient preferences regarding treatment characteristics across countries/regions
- The present study used a targeted literature review to evaluate the treatment preferences of oncology patients across geographical subgroups

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Conflicts of interest

Josh Coulter, Savanna Darnell, Anthony Eccleston, and Brett Hauber: employment with Pfizer; Lia Franco: former employment with Pfizer; Abin Koshy: employment through St. John's University post-doctoral fellowship program funded by Pfizer.

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Methods

- A targeted literature review was conducted using PubMed to identify oncology patient preference studies published from 2013 to 2023 that included samples from both the US and Europe
- The search strategy used for all databases included oncology-specific terms and keywords associated with preference elicitation techniques
- Once duplicates were removed, identified abstracts were extracted from the databases and uploaded to Rayyan® for a collaborative review by 2 or 3 reviewers
- Studies were considered eligible for inclusion if they were related to oncology treatment attributes, contained quantitative preference information, and included respondents from the US and ≥1 European country
- All studies tagged for inclusion in the abstract review were then extracted for full text review to further assess study eligibility
- For studies evaluating either the US or ≥1 European country, searches were conducted to identify companion studies in the grey literature using Ferma.AI
- All data from included literature were extracted, and attributes, levels, and their associated preference weights were transformed into relative importance estimates and grouped into 4 categories:
  - Benefits (ie, efficacy endpoints)
  - Risks (ie, adverse events)
  - Route of administration (ROA)
  - Other attributes
- Relative importance of an attribute was calculated by determining the attribute's utility range (defined as the difference between the highest and lowest utility values), dividing by the total utility range of all attributes, and multiplying by 100

Results

Study Attrition

- Out of 707 studies identified through the PubMed search, 6 studies were identified during the full text review (**Figure 1**)
  - Two studies were excluded because they did not report results separately for US and European respondents[4,5] (**Figure 1, Table 1**)
  - Four studies were identified for subgroup analysis,[6-9] and 1 additional abstract[10] was identified using Ferma.AI, resulting in a total of 5 studies included in this analysis (**Figure 1**)

Study Characteristics

- All 5 included studies had participants from the US and ≥1 European country (UK, Germany, Italy, France, and Spain) and were published between 2020 and 2023 (**Table 1**)
  - 2 studies included participants from Canada in 1 of their geographical subgroups
- The cancer types studied in the included publications were lymphoma, prostate cancer, urothelial cancer, myeloma, and leukemia (**Table 1**)

Attributes

- Attribute stratification for benefits, risks, ROA, and other categories for the 5 included studies is shown in **Table 2**
  - All 5 studies included benefit and risk attributes
  - Two of the studies had complete information on benefits, risks, ROA, and other attributes[7,10]
  - Survival endpoints were the most common attribute within the benefits category
  - All studies included ≥1 adverse event attribute within the risk category
  - Four of the 5 studies included ROA[7-10]
  - The "other" category included frequency of bloodwork, requirement for steroids, and out-of-pocket costs

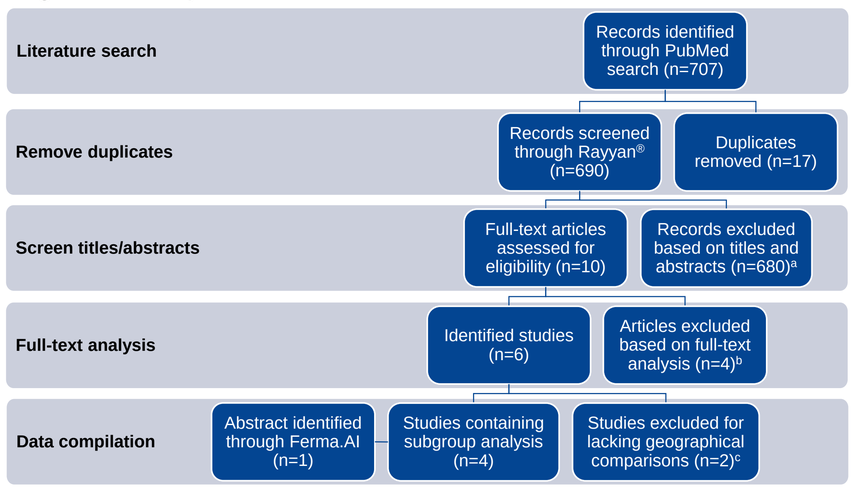
Rank of Attributes Per Study

- In 4 of the studies, respondents in both regions placed more importance on benefits than risks [6,7,9,10] (**Figure 2**)
  - In 1 study, the European subgroup placed more importance on benefits than risks, while the US subgroup placed more importance on risks than benefits[8]
- The relative importance of ROA was similar between geographical subgroups in 2 of the 4 studies that assessed ROA[7,10] (**Figure 2**)
  - In the other 2 studies, US respondents placed a greater importance on ROA compared with non-US respondents[8,9]
- Compared with other attributes, the relative importance of ROA was consistent between geographical subgroups in 3 studies[7,8,10]

Study limitations

- Limitations of the present study include the availability of only 5 patient preference publications that met the study inclusion criteria, potential reporting biases, lack of understanding of patient demographics across countries, and differences in the countries included in each study

Figure 1. Study Attrition



[a]Removed because they were animal studies, comprehensive reviews, wrong geography, or wrong disease area. [b]Removed for being literature reviews (n=2) or not containing detailed quantitative data for extraction (n=2). [c]Removed because they did not perform subgroup analyses that could provide insights into differences in preferences across geographies (n=2).

Table 1. Summary of Identified Studies

	Year published	Cancer type	Subgroups
Birch et al[6]	2022	Lymphoma	US (n=105) vs EUR (n=119)
Gonzalez et al[7]	2023	Prostate	US (n=200) vs EUR[a] (n=150)
King-Concialdi et al[8]	2023	Urothelial	US (n=97) vs EUR[b] (n= 92) and CAN (n=18)
Thomas et al[9]	2023	Myeloma	US (n=100) vs EUR[c] (n=196)
Tervonen et al[10,d]	2020	Leukemia	US (n=104), EUR[e] (n=60), and CAN (n=6) vs EUR[e] (n=60)
Mansfield et al[4,f]	2023	Breast	US (n=200), EUR[a] (n=52), and JAP (n=50)
Liede et al[5,f]	2017	Breast	US (n=349), EUR[a] (n=118), AUS (n=124),and CAN (n=31)

AUS, Australia; CAN, Canada; EUR, Europe; JAP, Japan; US, United States. [a]UK. [b]Germany (n=60), UK (n=31), and France (n=1). [c]UK (n=49), Italy (n=45), Germany (n=43), France (n=39), and Spain (n=20). [d]Published as an abstract. [e]Germany (n=30) and Italy (n=30). [f]Excluded from analysis because subgroups were not reported separately.

Table 2. Attribute Stratification

	Birch et al[6]		Gonzalez et al[7]		King-Concialdi et al[8]		Thomas et al[9]		Tervonen et al[10]	
	No.	Attributes	No.	Attributes	No.	Attributes	No.	Attributes	No.	Attributes
Benefits	3	• 1-year survival • 3-year survival • Time until functioning returns to pretreatment levels	1	• Patients alive after 5 years	2	• Cancer-free survival • Overall survival	3	• Overall response rate • Duration of response • Overall survival	2	• 2-year survival • Time until relapse
Risks	2	• Risk of serious infection • Risk of cytokine release syndrome/risk of neurological event	4	• Tiredness • Skin rash • Problems with nervous system • Other problems	5	• Risk of nausea—all grades • Risk of hypothyroidism—all grades • Risk of fatigue—all grades • Risk of serious AE hospitalization • Risk of diarrhea—all grades	4	• Cytokine release syndrome • Ocular adverse events • Peripheral neuropathy • Severe diarrhea	2	• Risk of serious infection • Risk of mild to moderate stomach problems
ROA	0	NA	1	• Administration	1	• Dosing regimen	1	• Administration	1	• Administration
Other	0	NA	2	• Frequency of bloodwork • Requirement for steroids	0	NA	0	NA	1	• Out-of-pocket costs per month

ROA, route of administration; NA, not applicable.

Figure 2. Relative Importance of Attributes by Study

CAN, Canada; EUR, Europe; ROA, route of administration; US, United States.