

Preference Elicitation for Genomics-Guided Lymphoid Cancer Management

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BACKGROUND

- Collectively, **lymphoid cancers** are one of the most common groups of cancers in Canada.^[1]
- Genomic technologies can be used to **stratify** this disease into clinically meaningful **subgroups**; however, subgroup-specific treatments are not always available (Figure 1).^[2]
- Implementation of genomics-guided disease management relies on evidence of cost effectiveness, clinical impact, and **preferences** for its use.^[3,4]

Research Question

What are the **factors influencing patients' and general populations' preferences for genomic testing** in the context of first-line lymphoid cancer management?

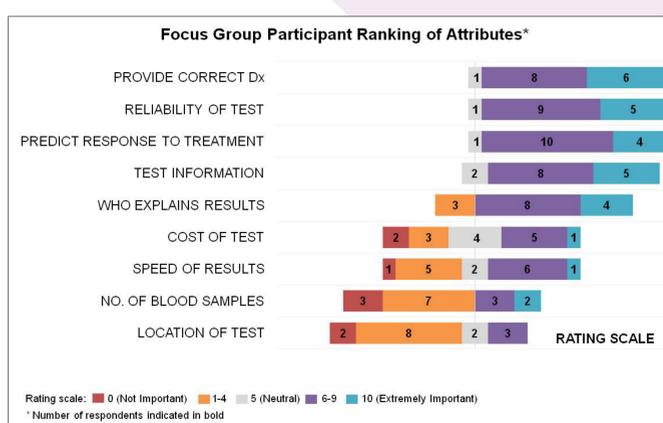
METHODS

This study* was composed of two phases:

- Focus Groups (FG)** used to explore opinions and perspectives of 15 BC Cancer patients regarding genomic testing for managing lymphoid cancer
- Think-Aloud (TA) interviews** used to understand the factors influencing 15 members of the general populations' preferences for genomic testing while completing a sample discrete choice experiment (DCE) task

Data were coded using Nvivo Software (QSR International Pty Ltd., v.11). Open-coding and framework analysis approaches were used. Multiple reviewers analyzed the data (S.C., C.B., I.C.).

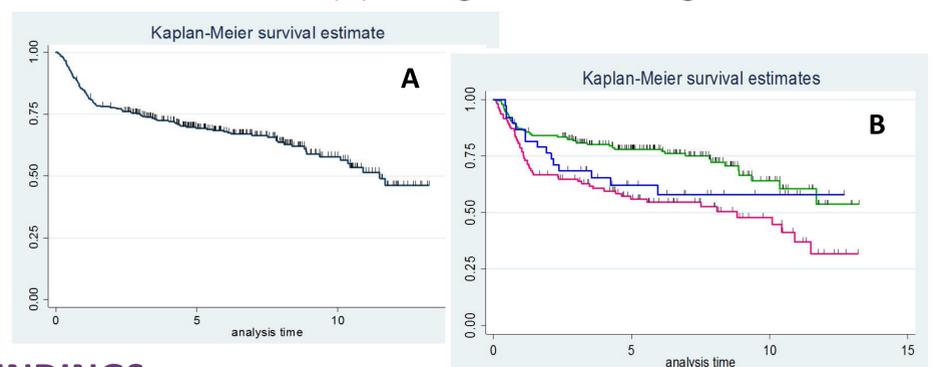
Figure 2. FG participant rankings of factors important to a decision to undergo testing



References

- *Ethics approval was obtained from UBC-BC Cancer Agency Research Ethics Board (H16-03344).
[1] Non-Hodgkin lymphoma statistics – Canadian Cancer Society. (2018) Access via: www.cancer.ca
[2] Scott DW et al., Journal of Clinical Oncology ; 33(26):2848-2856.
[3] Buchanan, J et al., Pharmacogenomics 2013; 14(15): 1833-1847.
[4] Bombard Y et al., JNCCN 2013; 11(11): 1343-1353.
[5] Regier DA et al., CMAJ 2015; 187(6):E190-197.

Figure 1. Kaplan-Meier estimates for a cohort of 335 diffuse large B-cell lymphoma patients with (A) no genomic testing, and (B) with genomic testing



FINDINGS

- FG participants rated factors important to a decision to undergo testing (Figure 2)
- Four themes were identified from the FGs and TAs that influence individuals' preferences to undergo genomic testing:

Experience with disease: FG participants saw their cancer as manageable and were hopeful about their prognosis; TA participants saw lymphoid cancer as a debilitating disease.

Desire for more genomic information: The majority of FG and TA participants desired having more information. TA participants accepted information that was only prognostic; FG participants preferred information that could inform treatment:

[I]f you can't do anything with the information, because there is no -- nothing like a treatment . . . then why would you take that hope away? – Participant 3, FG1.

Acceptance of uncertainty in results: Nearly all FG and TA participants accepted that there are “no hundred percents” in medicine (Participant 6, FG1). However, higher test accuracy was one of the most important factors to TA participants in their decision-making about testing.

Willingness to pay for testing: FG participants were more likely than TA participants to qualify a decision to pay for testing with conditions such as “actionability” and “reliability” of results.

DISCUSSION

Our analysis suggests that people place a value on having additional information about prognosis. We found some evidence of a preference for “actionable” information. Participants made trade-offs between different aspects of tests (i.e., accuracy) in their decision-making.

The next phase of this work, the DCE task, will allow us to enumerate the value of knowing in the context of the other relevant decision attributes found in this qualitative study.