

# Treatment Decision-Making in Older Adults with Acute Myeloid Leukemia

CARG Call

12/15/2020

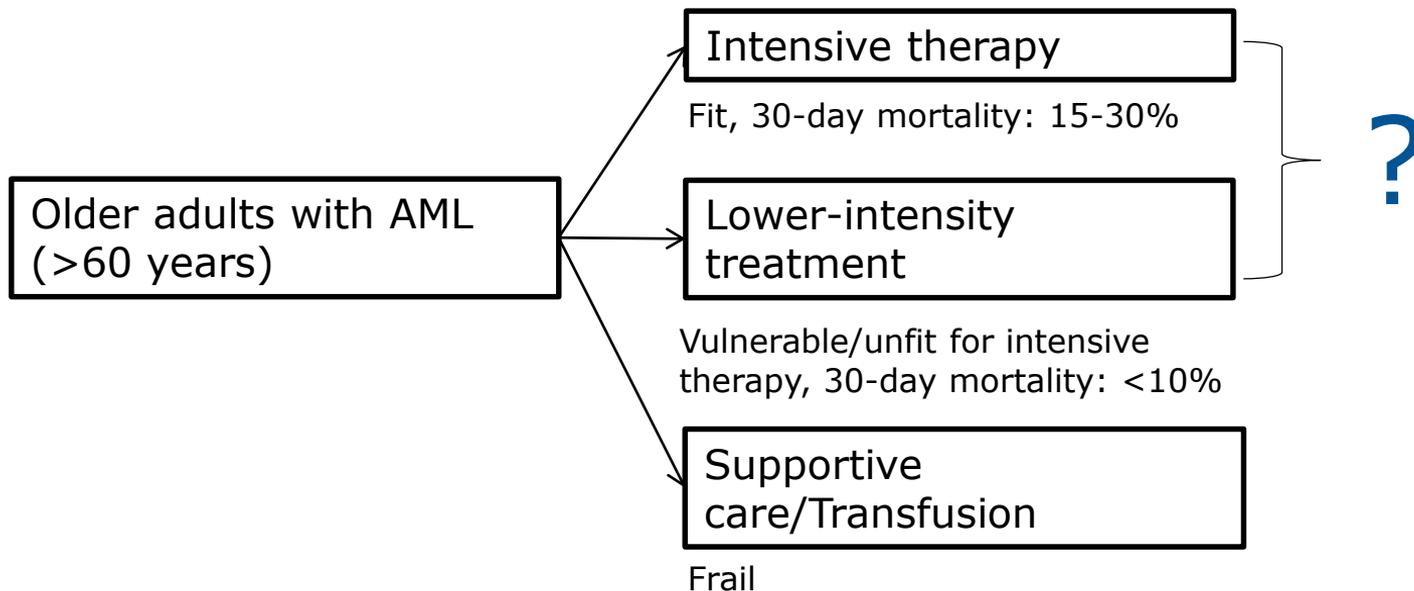
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# AML Treatment for Older Adults





## Treatment decision-making in acute myeloid leukemia: a qualitative study of older adults and community oncologists

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# Qualitative Study of Older Patients (N=15) and Community Oncologists (N=15)

- Elicit factors that affect patient and oncologist decision-making
- Many older patients did not feel that they were adequately informed of their treatment options



## Patient Quotes:

- *"The only option I had was going through this. It's do or die"*
- *"Well, I didn't have any choice."*
- *"We weren't given an option."*
- *"That's the only one (option) so that's why let me try it."*



## Factors cited as affecting **general** decision-making



### Patient-related factors



### Disease & treatment-related factors



### Physician-related factors



### Organization-related factors

## Cited by community oncologists

- Cognition and ability to consent
- Reversibility of functional impairment

- Rare case/presentation
- Treatment burden
- Residual disease
- Prior treatment

- Clinical gestalt/overall impression
- Physician beliefs

- Transplant availability
- Practice pattern

## Cited by both community oncologists & patients

- Overall health
- Chronological age
- Comorbidities
- Performance status/functional status/frailty
- Emotional health
- Patients' knowledge/understanding
- Patient motivation and preference
- Living situation/transportation
- Insurance coverage/financial burden
- Quality of Life
- Caregivers' opinion
- Social support

- Disease aggressiveness/biology
- Treatment benefits/success rate/futility
- Treatment toxicity/tolerability
- Symptoms

- Oncologist's clinical expertise & experience

- Clinical trial/Alternative treatment options
- Infrastructure (*e.g. ability to administer induction chemotherapy*)
- Distance to tertiary/treatment center

## Cited by patients

- Longevity
- Want to get better or "want to try"
- "I have no choice"
- Caregiver burden
- Experience of other patients

- Inpatient ("*controlled environment*") vs. outpatient ("*being home*")
- Rapidity of disease onset
- Time to remission
- Treatment duration

- Trust in oncologist/care team
- Recommendations from other physicians/others

- Perceived quality of care
- Perceived quality of facility



Factors cited as affecting  
decision-making:  
**Intensive vs. Lower-intensity**



**Patient-  
related factors**



**Disease & treatment-  
related factors**



**Physician-  
related factors**



**Organization-  
related factors**

**Cited by community  
oncologists**

- Comorbidities
- Performance status/functional status/frailty
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**Cited by patients**

- Overall health
- Quality of life
- Insurance coverage/financial burden
  
- Time to remission
  
- Trust in oncologist/care team



# Communication tool to facilitate decision-making

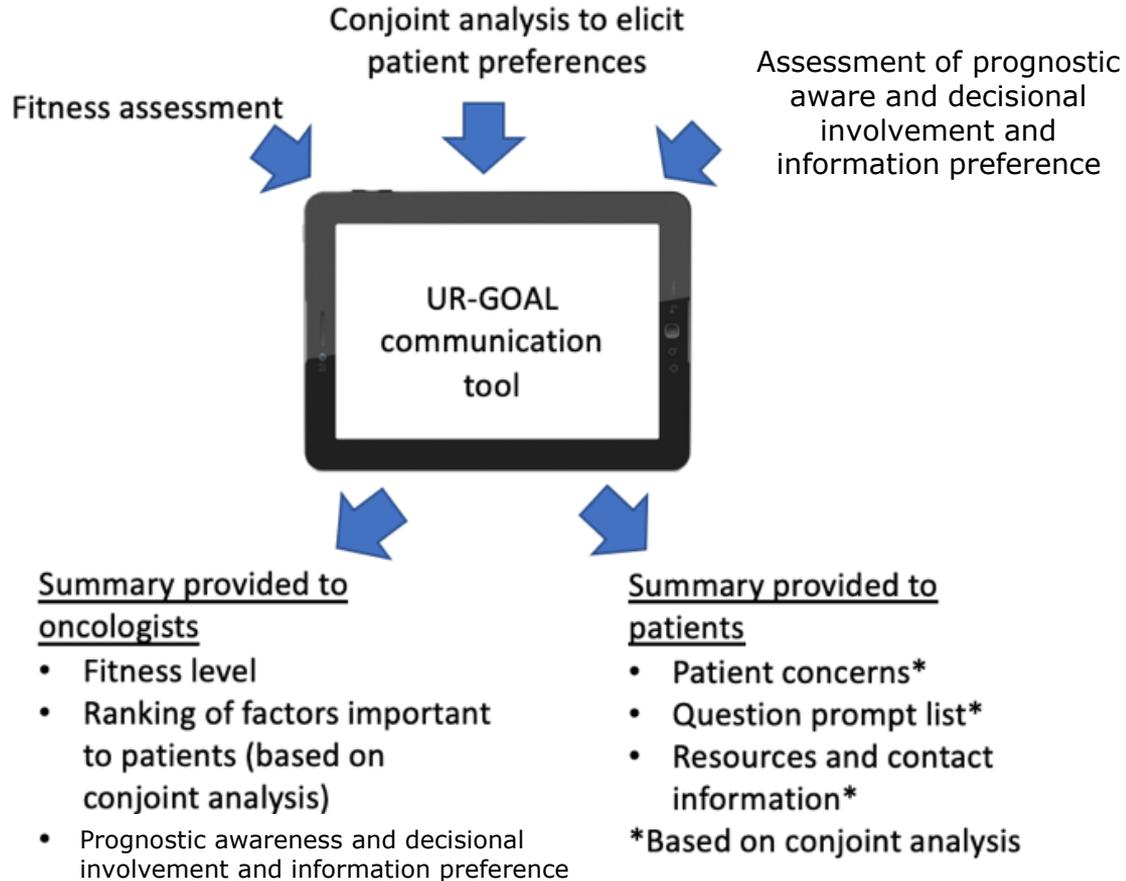
To develop, adapt, and evaluate the usability and feasibility of a patient-centered communication tool (UR-GOAL) that incorporates conjoint analysis to elicit patient preferences as well as assessments of fitness and prognostic awareness/decisional and information preferences.

Long-term  
goal

To assess whether the UR-GOAL tool improves shared decision-making, patient satisfaction, psychological health, and prognostic awareness.



**Figure 1: Components of the UR-GOAL communication tool**



# Conjoint Analysis

Please choose the option that matches best what is important to you.

RESPONSE TO  
TREATMENT:



RISK OF DEATH:



DAILY ACTIVITIES:



## Option 1

My cancer has a **lower** (less than 50%) chance of responding

I have a **less than 10%** chance of dying from treatment

I **require help** with housekeeping, shopping, using transportation

Select

## Option 2

My cancer has a **higher** (more than 50%) chance of responding

I have a **20-30%** chance of dying from treatment

I am able to do the same activities I can do now **without help**

Select



# Summary Report for Physicians

## Demographics

Patient Name: Jane Doe

Date of Birth: 7/10/1950

Age: 70

Patient feels 75

Rates health compared to others their age as *FAIR*

Patient lives in a *SENIOR LIVING FACILITY*

Patient lives with *SPOUSE*

## Fitness Level

### Functional Status

Your patient may have met screening criteria for functional impairment on the following tests:

*Any ADL Deficit: Yes*

*Any IADL deficit: Yes*

*Short Physical Performance Battery Score: Impaired*

Your patient may have high risk of future falls as demonstrated by the scores on the following:

*Falls: Yes*

*Hearing: Poor or Deaf*

*Eyesight: Poor or Blind*

### Cognition

Your patient may have met screening criteria for functional impairment on the following test:

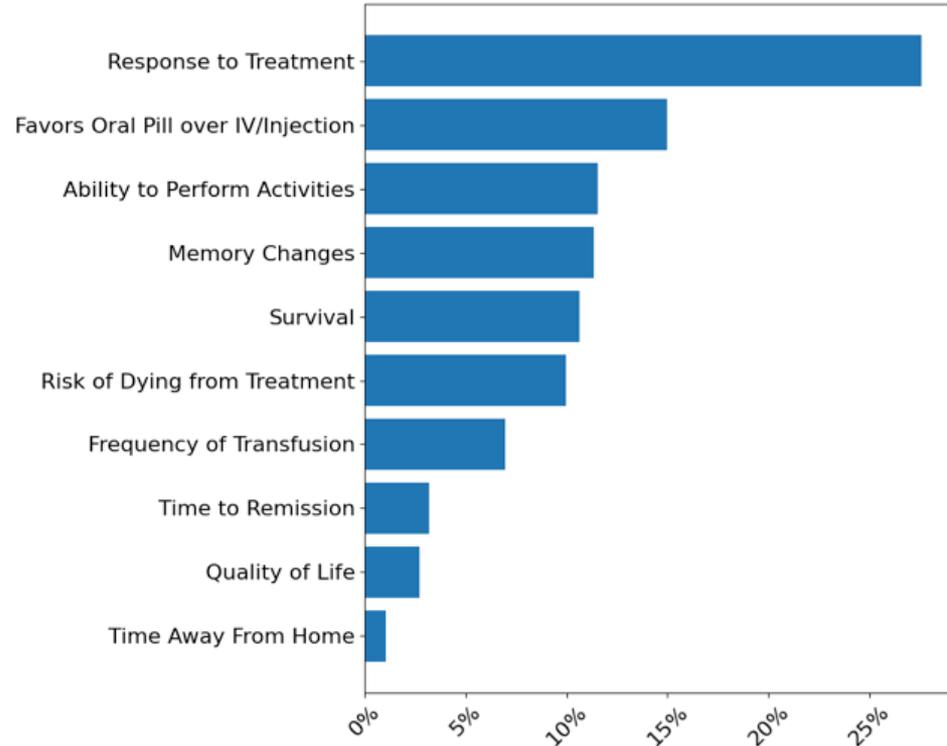
*Mini Cog: Impaired*



# Summary Report for Physicians

## Preference Report

The figure shows the order of importance each factor to your patient when making treatment selection. In other words, your patient considers RESPONSE TO TREATMENT, ROUTE OF ADMINISTRATION, and DAILY ACTIVITIES as most important when selecting treatment.



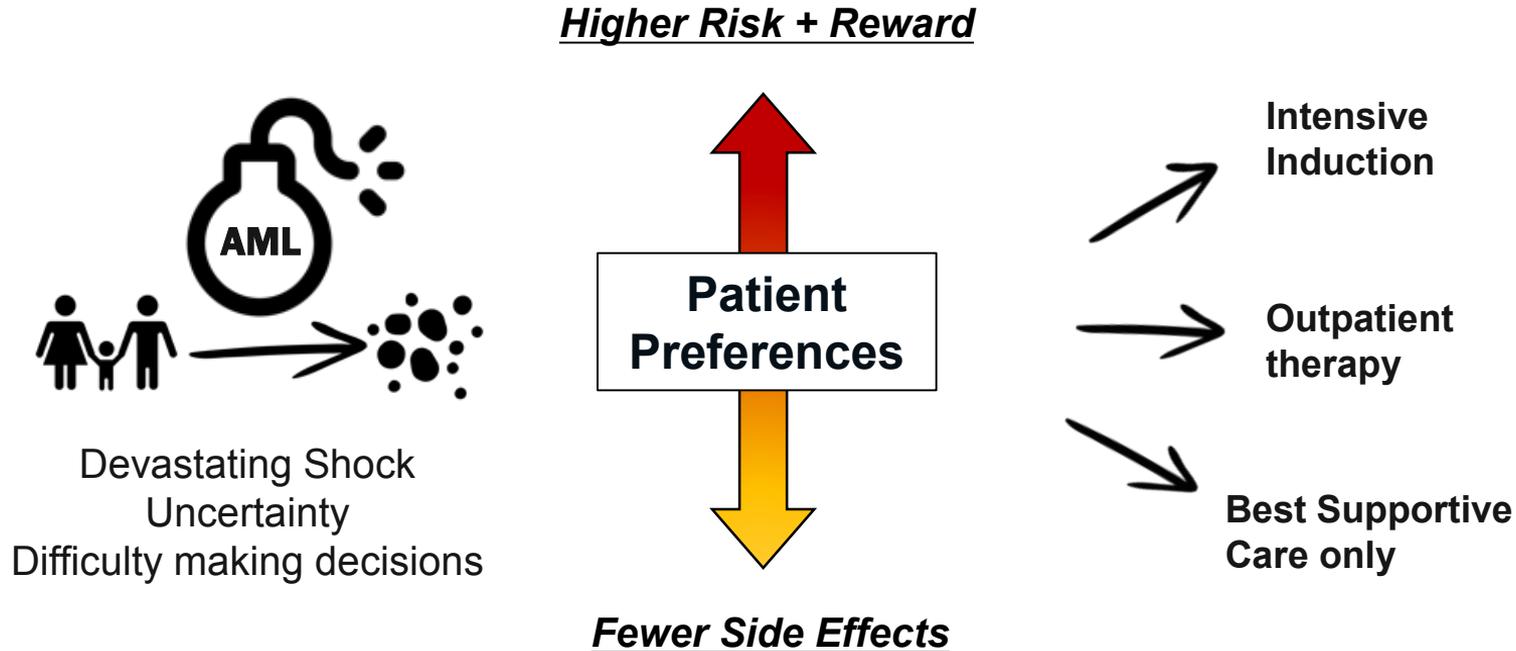
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Assistant Professor, Medicine-Hematology  
UNC-Chapel Hill  
Cancer Preventions and Control

# Introduction

- Leukemia, Cancer Outcomes and Health Services Researcher
- Patient Experience, Value/Preference-Concordant Care, Clinical Decision-Making, Bioethical implications of Cancer Care



# Chemotherapy decisions for older AML patients are complex



## Primary Hypothesis:

Capturing and reporting outcomes that are most important to individual patients will greatly enhance patient-centered care by improving oncologists' ability to tailor treatment decisions to individual patient preferences.



# Age at Diagnosis and Patient Preferences for Treatment Outcomes in AML: A Discrete Choice Experiment to Explore Meaningful Benefits



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## ABSTRACT

**Background:** The recent expansion of treatment options in acute myeloid leukemia (AML) has necessitated a greater understanding of patient preferences for treatment benefits, about which little is known.

**Methods:** We sought to quantify and assess heterogeneity of the preferences of AML patients for treatment outcomes. An AML-specific discrete choice experiment (DCE) was developed involving multiple stakeholders. Attributes included in the DCE were event-free survival (EFS), complete remission (CR), time in the hospital, short-term side effects, and long-term side effects. Continuously coded conditional, stratified, and latent-class logistic regressions were used to model preferences of 294 patients with AML.

**Results:** Most patients were white (89.4%) and in remission (95.0%). A 10% improvement in the chance of CR was the most

meaningful offered benefit ( $P < 0.001$ ). Patients were willing to trade up to 22 months of EFS or endure 8.7 months in the hospital or a two-step increase in long-term side effects to gain a 10% increase in chance of CR. Patients diagnosed at 60 years or older (21.6%) more strongly preferred to avoid short-term side effects ( $P = 0.03$ ). Latent class analysis showed significant differences of preferences across gender and insurance status.

**Conclusions:** In this national sample of mostly AML survivors, patients preferred treatments that maximized chance at remission; however, significant preference heterogeneity for outcomes was identified. Age and gender may affect patients' preferences.

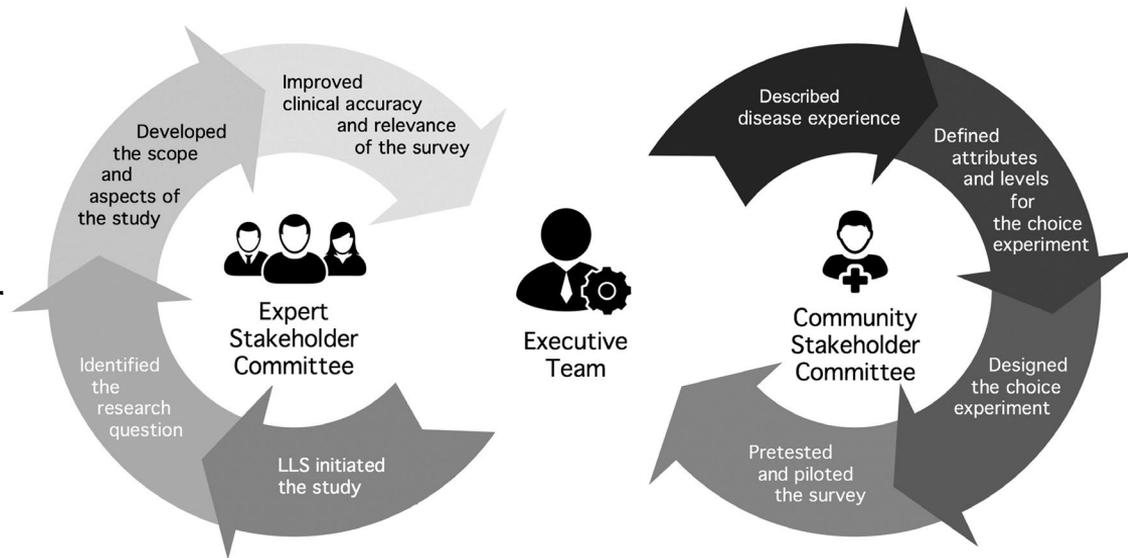
**Impact:** Survivor preferences for outcomes can inform patient-focused drug development and shared decision-making. Further studies are necessary to investigate the use of DCEs to guide treatment for individual patients.



# Advancing patient-centered care in AML

This was a community-centered study funded by the Leukemia & Lymphoma Society (LLS)

**Objective:** To develop tools to answer research questions related to patient-centered care in AML (patient unmet needs and preferences)



Timeline: 2015-2018

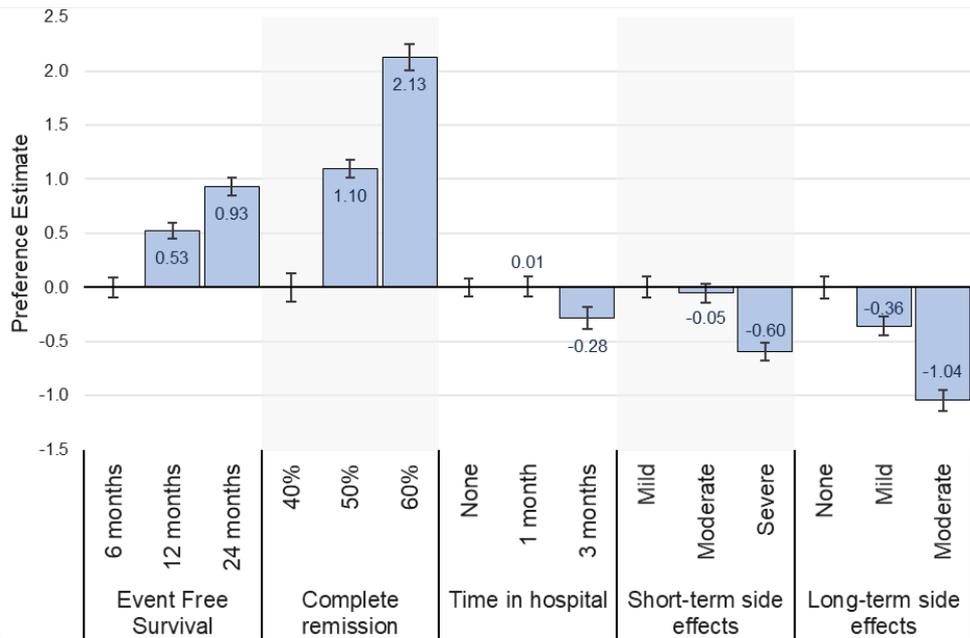
# Development of the discrete choice experiment (DCE)

- **Objective:** To measure patient preferences for risks and benefits of AML treatments
- DCE: patients choose between two hypothetical treatment options with different potential risks and benefits
- DCEs rely on attribute levels to allow for risk-benefit trade-offs
- **5 critical outcomes** (attributes) were identified and tested
- Pilot testing (x2, 51 patients) was used to refine instrument and attribute levels

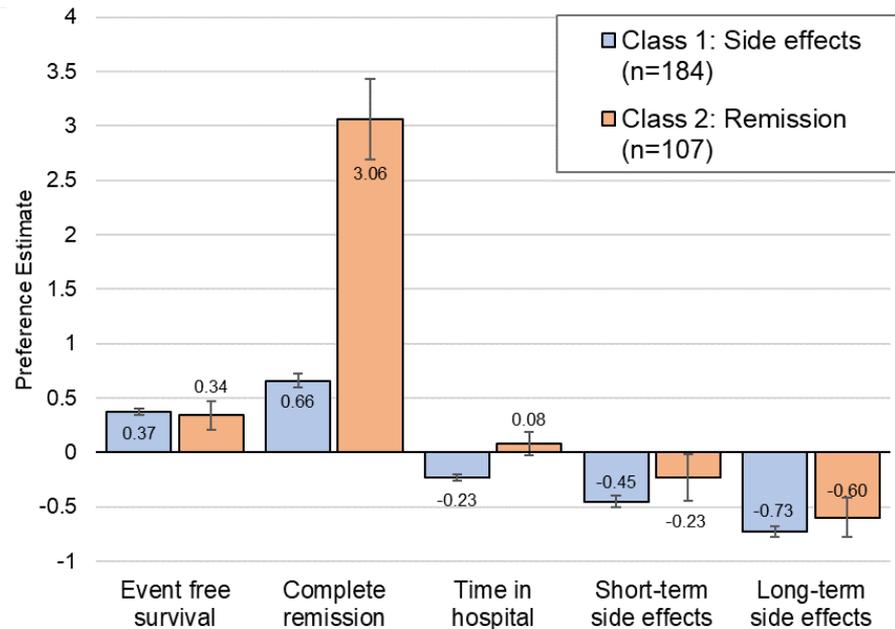
Attributes	Levels
Event-free survival	6 months 12 months 24 months
Complete remission	40% chance 50% chance 60% chance
Time in hospital	None 1 month 3 months
Short-term side effects	Mild Moderate Severe
Long-term side effects	None Mild Moderate

# Patients value complete remission and avoiding long-term side effects, though heterogenous

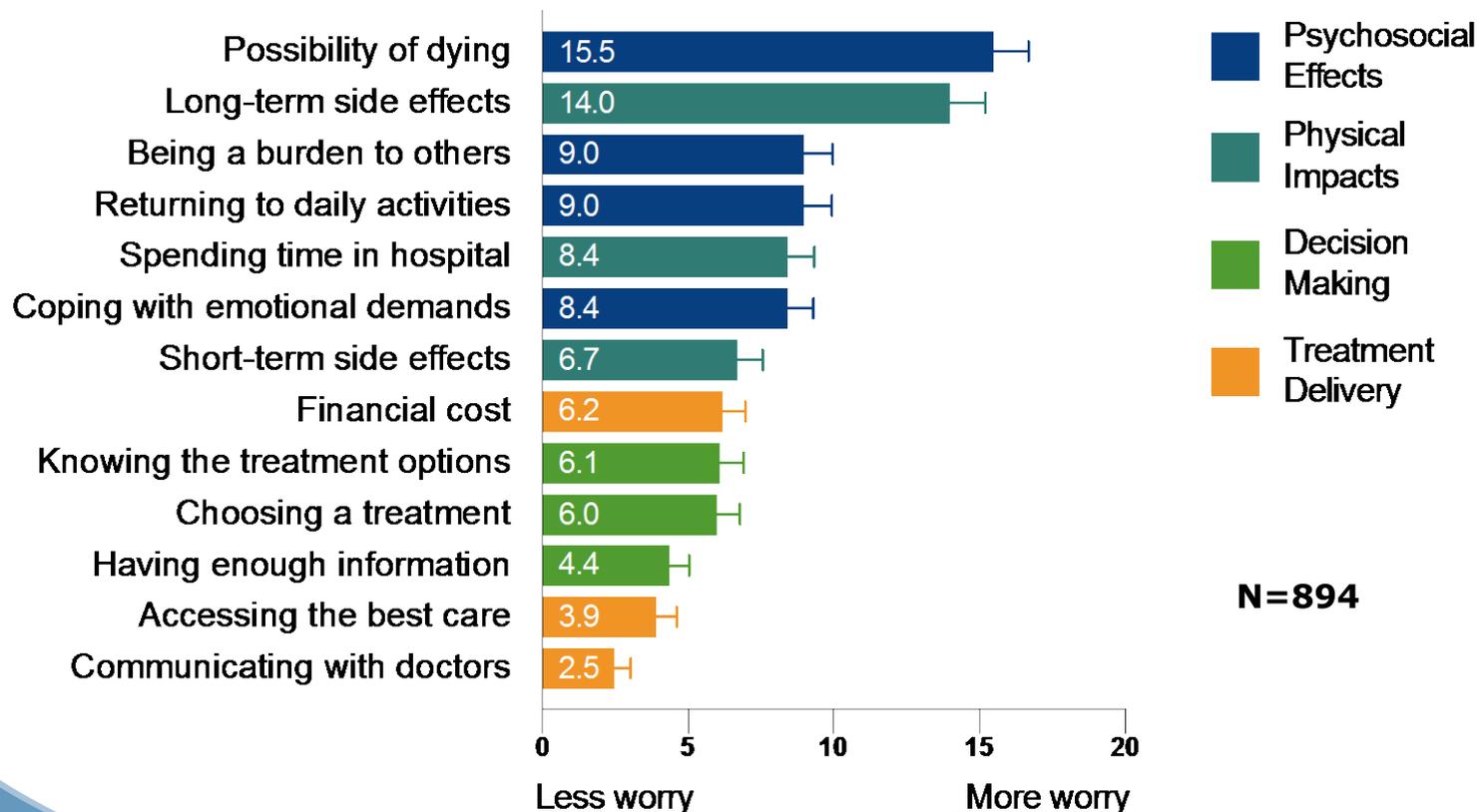
Patient preferences for treatment outcomes (n = 294)



Latent class analysis of patient preferences



# Patients with AML have diverse and wide-ranging worries



# AML Patient Preferences - Takeaways

Stated preference methods are effective at eliciting AML patient preferences

Participants were willing to make risk-benefit trade-offs between outcomes

Patients >60 yrs more strongly prefer to avoid short-term side effects

**How can we use these methods to inform care at the bedside?**



# K08 design: Develop a tool to capture and display longitudinal preferences for treatment outcomes

Here are the factors that most influenced your decision-making about treatment:



Maximizing the chance your leukemia responds to therapy is most important to you when choosing between treatments

## YOUR PERSONALIZED TREATMENT OUTCOME PREFERENCES

Week 7: You currently most value **time at home** and have a **balanced profile**

What is currently most important to you?



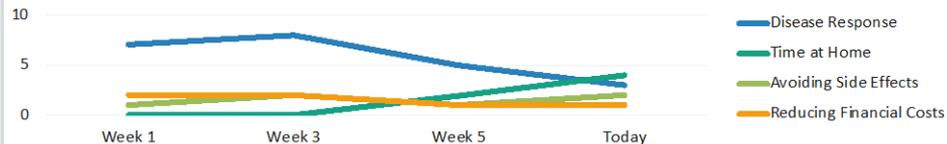
Spending time at home is currently most important to you when choosing between treatments

Current Risk/Benefit Profile



Your preferences are similar to other AML patients who prefer to **balance risks and benefits**

Your change in preferences over time



Since your last survey, time at home has become more important and disease response has become less important.



# Questions

1. What outcomes?
  - OTU equivalent?
  - Time points (bias?)
  - Long follow-up
2. How do we get clinicians to use the tool? How do we structure the study to improve uptake and adoption down the line?
3. How do we capture preferences longitudinally?
4. Decision-making may not be rationale (especially in the acute setting); how do we account for the emotional component?

