



## The 65th ASH Annual Meeting Abstracts

## ORAL ABSTRACTS

## 902.HEALTH SERVICES AND QUALITY IMPROVEMENT - LYMPHOID MALIGNANCIES

**Comprehensive Analysis of Structural and Social Determinants of Health Leading to Delays in Seeking Hematologic Care: Survey of an Underserved Population with Hematologic Malignancies**

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**Background:**

Disparities in outcomes based on age, race, and socioeconomic status are well-established among patients with hematologic malignancies. Timely access to health care is essential for successful treatment of aggressive hematologic malignancies. Delays in receiving treatment have been linked to worse cancer outcomes in solid tumors and is presumed to lead to worse outcomes in hematologic malignancies. Memphis, owing to its geography, draws patients from Tennessee, Arkansas, and Mississippi for complex medical care. Patients at our institution frequently belong to underserved communities, including rural, impoverished, underinsured, and racial minority populations. In this exploratory study, we sought to characterize the potential structural and social barriers that patients in an underserved population with hematologic malignancies may face accessing oncologic care around the time of their cancer diagnosis.

**Methods:**

A cross-sectional survey was conducted to better understand potential barriers to accessing hematologic care in the greater Memphis area. The survey was developed through a review of existing literature on this topic (i.e., Anderson's conceptual model for healthcare utilization), as well as from the investigators' clinical experience treating cancer patients. Several components of social determinants of health (SDOH), including psychosocial, economic, health literacy, behavioral, health care perceptions, cultural, structural, environmental, clinical, and chronic stress domains, were queried in this 56-item survey. Most items were presented as closed-ended statements on a Likert scale. Response categories for analyses were collapsed into two levels (eg, "agree" for "somewhat" or "strongly"; "concerned" for "somewhat" or "very"). Descriptive statistics, including percentages, means, medians, and ranges, were used to characterize the sample.

**Results:**

A total of 41 out of 46 consented patients completed the survey (response rate: 89.1%). The median age of respondents was 56.3 years (Table 1). Most had lymphoma (48.8%), followed by acute myeloid leukemia (17.1%) and multiple myeloma (12.2%). The majority of respondents were male (53.7%) and Black or African American (46.3%). Over half of the sample reported an annual income of less than \$25,000 (57.1%) and nearly a third were uninsured at the time of their cancer diagnosis (32.5%). Approximately 44% of respondents believed that medical attention to their cancer symptoms was delayed prior to their cancer diagnosis by a doctor. Of this subset, the majority attributed the delay to economic factors (64%), followed by health literacy (58%), structural (51%), healthcare perceptions (47%), behavioral (45%), psychosocial (45%), chronic stress (43%), cultural (15%) and clinical (11%) reasons (Table 2).

**Conclusions and Implications:**

To our knowledge, this is the first survey study to investigate the factors from a patient's perspective that contributed to delays in seeking care for hematologic malignancies. This pilot study establishes the feasibility of approaching an extremely underserved population about sharing their experiences accessing medical care around the time of their cancer diagnosis as well as participating in research. Along with already well-established economic, health literacy, psychosocial, and structural barriers, respondents endorsed that health care perceptions and chronic stress contributed almost equally to delays in seeking care. Cultural and clinical barriers contributed the least. Our study findings are limited by a skewed patient selection toward those who survived initial hospitalization and treatment and is not inclusive of the sickest patients in our patient population who experienced neglected cancer symptoms. A mixed-methods, focus-group based study is planned as the next step to

substantiate these findings and allow us to gain a deeper understanding into the social disparities that most heavily impact this underserved population.

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**Table 1. Participant characteristics (N=41)**

Characteristic	Median (Range) No. (%)
<b>Demographics</b>	
Age, years	56.3 (25-82)
<b>Gender</b>	
Male	22 (53.7)
<b>Race</b>	
Asian or Asian American	3 (7.3)
Black or African American	19 (46.3)
White	14 (34.1)
Other	5 (12.2)
<b>Ethnicity</b>	
Hispanic or Latino	4 (9.8)
Not Hispanic or Latino	37 (90.2)
<b>Clinical</b>	
<b>Diagnosis</b>	
Lymphoma	20 (48.8)
Acute myeloid leukemia	7 (17.1)
Multiple myeloma	5 (12.2)
Others	9 (22.0)
<b>Time from symptom onset to receiving oncologic care</b>	
Less than 1 month	19 (47.5)
1 to 3 months	7 (17.5)
Greater than 3 months	6 (15.0)
Cannot recall or no symptoms at diagnosis	8 (20.0)
<b>Socioeconomic</b>	
<b>Highest education level</b>	
Some high school or less	12 (30.0)
High school diploma or equivalent	8 (20.0)
Some college	6 (15.0)
Associate or Bachelor's degree	9 (22.5)
Graduate or professional degree	5 (12.5)
<b>Children or dependents at home</b>	
No	21 (53.8)
<b>Health insurance at diagnosis</b>	
No	13 (32.5)
<b>Employment status at survey completion</b>	
Employed	12 (30.8)
Unemployed	11 (28.2)
Retired or student	16 (41.1)
<b>Annual household income*</b>	
Less than \$25,000	20 (57.1)
\$25,000 or more	15 (42.9)

**Table 2. Perceived barriers contributing to delay in medical care prior to diagnosis (N=18)\***

Social Determinant of Health Domain (Mean % across domain)	No. (%)
<b>Economic (64%)</b>	
Concerned about cost of potential hospitalizations	15 (83.3)
Concerned that insurance company would deny claim	12 (75.1)
Concerned about lack of health insurance	10 (58.8)
Concerned about lost wages for sick time	10 (58.8)
Concerned about potential demotion or job loss	7 (43.8)
Concerned about finding transportation to medical facility	7 (38.9)
Did not have time to seek medical attention due to taking care of family	3 (16.7)
Concerned about paying for childcare or elder care	1 (6.3)
<b>Health Literacy (58%)</b>	
Did not know that symptoms were possibly a sign of cancer	16 (94.1)
Concerned about talking to doctor about symptoms	9 (50.0)
Preferred to receive alternative or traditional treatments	5 (31.3)
<b>Structural (51%)</b>	
Concerned that insurance company would deny claim	12 (75.1)
Concerned about finding doctor that would correctly diagnose symptoms	11 (61.1)
Concerned about lost wages for sick time	10 (58.8)
Concerned about spending too much time waiting for appointment	6 (33.3)
<b>Health Care Perceptions (47%)</b>	
Concerned about talking to doctor about symptoms	9 (50.0)
Concerned that doctor would not listen to concerns	8 (44.4)
<b>Behavioral (45%)</b>	
Thought it was unlikely to be cancer because usually healthy	14 (77.7)
Rationalized that pain or symptoms were normal	9 (52.9)
<b>Psychosocial (45%)</b>	
Thought it was unlikely to be cancer because usually healthy	14 (77.7)
Concerned about need for hospitalization	11 (61.1)
Believed symptoms were caused by something else	10 (58.8)
Concerned about receiving treatment from doctor	10 (55.6)
Afraid about possibility of being diagnosed with cancer	9 (50.0)
<b>Chronic Stress (43%)</b>	
Concerned about contracting COVID-19 from hospital or doctor office	8 (47.0)
Experiencing stressors that were more important than medical care	7 (38.9)
<b>Cultural (15%)</b>	
Preferred to receive alternative or traditional treatments	5 (31.3)
Worried about what community would think if diagnosed with cancer	3 (17.7)
Concerned about wasting doctor's time	2 (11.1)
<b>Clinical (11%)</b>	
Pre-existing health conditions made it difficult to discuss new symptoms with doctor	2 (11.1)

\*Participants who agreed that medical attention to their cancer symptoms was delayed prior to diagnosis were asked to rate how strongly they agreed to statements or how concerned they were about potential reasons that they perceived may have contributed to the delay in getting medical care prior to their cancer diagnosis.

**Figure 1**

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