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5183 Patient-Reported Outcome Measures Associated with Overall Survival and Acute Care Use in Patients with Newly Diagnosed Myelodysplastic Syndrome, Acute Myelogenous Leukemia, or Acute Lymphoblastic Leukemia

Program: Oral and Poster Abstracts
Session: 906. Outcomes Research—Myeloid Malignancies: Poster III
Hematology Disease Topics & Pathways:
Research, Clinical Research, patient-reported outcomes

Monday, December 11, 2023, 6:00 PM-8:00 PM

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Background: There is limited data on the real-world application of patient-reported outcomes (PROs) and their clinical utility in patients with acute leukemias or myelodysplastic syndrome (MDS). While the associations of PROs with clinical outcomes, such as overall survival (OS) and acute care utilization have been established in patients with solid tumors (Basch E et al. JAMA, 2017.318(2):197-198), these same associations are not well known in patients with hematologic malignancies.

Objectives: We assessed the characteristics of baseline PRO measurements in patients with newly diagnosed acute myeloid leukemia (AML), acute lymphoblastic leukemia (ALL) or myelodysplastic syndrome (MDS) and examined their associations with OS as well as time to acute care use (TAC).

Methods: This retrospective cohort study was conducted on patients with newly diagnosed AML, ALL or MDS between 11/2018-02/2022 who were receiving care at our institution and completed a baseline PRO survey within 30 days of therapy initiation. The PRO survey consisted of a 14-question assessment from the National Cancer Institute's PRO Version of The Common Terminology Criteria for Adverse Events. Each of the symptom domains of the survey are measured on a 1-5 Likert scale. OS was defined as time from therapy initiation to the time of death. TAC was defined as time from therapy initiation to first unplanned acute care visit (emergency room visit or unplanned admission). OS curves were estimated using the Kaplan-Meier method and compared using log-rank tests. Cox proportional-hazards regression modeling was used to compare the hazards of death and acute care use between groups.

Results: 56 patients were included with a median age of 63 years (range 26-79). The cohort consisted of more males, non-Hispanic Whites, and patients that received intensive initial therapy (Table 1). Fatigue was the most frequently reported symptom (n=49, 87.5%, mean score of 2.90/5 (SD 1.30), with a majority reporting mild or no symptoms (score < 4, n=33, 58.9%) and 28.6% (n=16) reporting more severe symptoms (scores > or = 4). Similarly, most patients in this cohort reported mild or no symptoms in terms of anorexia, anxiety, or sadness (Table 1).

In terms of OS, univariate models for the presence of fatigue, anorexia, anxiety, or sadness was not associated with significantly higher hazard of death. On multivariate analyses adjusting for age, sex, and treatment intensity, every point increase in reported fatigue severity was associated with a 41% increased hazard of death (HR 1.41,95% CI: 1.03-1.93). When stratified by fatigue severity (> or = 4 severe vs < or = 3 mild/no symptoms), patients reported severe fatigue had an 145% increased hazard of death compared to those reported mild/no fatigue (HR 2.45 (95% CI: 1.07-5.61) (Figure 1). Multivariate analyses for anorexia, anxiety, and sadness were not associated with significant differences after adjusting for the above covariates, respectively.

Fourteen (25.0%) and 24 (42.9%) patients in this cohort had at least one unplanned acute care visit within 30 and 90 days from initiation of therapy, respectively. The median TAC for this cohort was 4.15 months (range 0.60-27.20 months). Univariate regression modeling revealed no differences for any of the PROs examined in this study. Similarly, no differences were observed in multivariate analyses for each of the PROs after adjusting for age, sex, and therapy intensity.

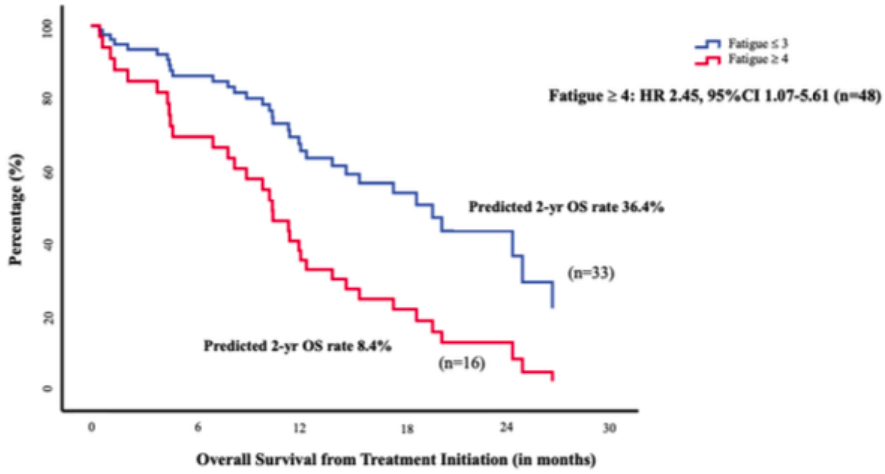
Conclusions: Fatigue was the most severe and frequently reported baseline symptom among patients with newly diagnosed acute leukemia or MDS. Patients reporting increased fatigue were found to have a higher hazard of death compared to those who did not after adjusting for age, sex, and treatment intensity. The characteristics and PROs examined in this study were not associated with TAC or predictive of acute care use at different time points from therapy initiation. Future work is needed to understand how PRO data can be used to identify higher-risk patients prior to treatment initiation.

Table 1: Baseline Characteristics of Patient Demographics and PRO Data

Groups	N (%)	PRO Mean (SD)
Age		
<60	19 (33.9)	
>61	37 (66.1)	
Sex		
Males	32 (57.1)	
Females	24 (42.9)	
Race		
Non-Hispanic White	50 (89.3)	

	Other	6 (10.7)	
Diagnosis			
	Acute Lymphoblastic Leukemia	3 (5.4)	
	Acute Myelogenous Leukemia	24 (42.9)	
	Myelodysplastic Syndrome	29 (51.8)	
Therapy Intensity			
	Non-Intensive	25 (44.6)	
	Intensive	31 (55.4)	
Fatigue Severity		49 (87.5)	2.90 (1.30)
	None	8 (14.3)	
	Mild	25 (44.6)	
	Severe	16 (28.6)	
Anorexia Severity		49 (87.5)	1.86 (1.10)
	None	27 (48.2)	
	Mild	20 (35.7)	
	Severe	2 (3.6)	
Anxiety Severity		49 (87.5)	1.96 (1.17)
	None	24 (42.9)	
	Mild	19 (33.9)	
	Severe	6 (10.7)	
Sadness Severity		49 (87.5)	1.8 (0.96)
	None	24 (42.9)	
	Mild	21 (42.8)	
	Severe	4 (7.1)	

Figure 1: Standardized survival probability by baseline fatigue severity after adjusting for sex, age, and initial therapy intensity.



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