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POSTER ABSTRACTS

906.OUTCOMES RESEARCH-MYELOID MALIGNANCIES

Measuring Social Toxicity in Acute Myeloid Leukemia

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Background: AML is an aggressive and costly cancer to treat, which often results in lower quality of life, including worse and more frequent depression and anxiety, physical strains, and financial toxicity. AML can also have a considerable impact on social well-being, including personal and work domains. While individual social impacts of cancer are often considered, we propose that social toxicity is a unique construct-much like financial toxicity-that should be measured as such. This study aims to (1) determine the feasibility of creating a composite measure of social toxicity and (2) examine the prevalence of social toxicity in AML patients and survivors and its relationship to other patient reported outcomes.

Methods: 109 AML patients and survivors enrolled in the Cancer Support Community's online survey, the Cancer Experience Registry, between Jan-Mar 2023 and completed at least 50% of items pertinent to social toxicity. First, six indices were coded (1=Yes; 0=No) based on negative social impact: PROMIS Social Function T-score (1=<40); three items from CancerSupport-Source including changes to work, school, or home life, problems in your relationship with your spouse/partner, and feeling lonely or isolated (1=moderately to very seriously concerned); employment (1=unemployed due to disability/other), and medication interfering with daily life (1=agree or strongly agree). Then, a social toxicity composite score was calculated by summing the number of indicators present (possible range = 0-6; higher scores = more social toxicity). Lastly, we investigated the relationship between social toxicity and patient reported outcomes, including anxiety and depression (PROMIS-29 4-item T-scores) and financial toxicity (11-item FACIT-COST).

Results: Among the sample, 63(58%) were women and 91(84%) were Non-Hispanic White, with a mean(SD) age of 63.6(13.3) years (range: 29-86). Median time since diagnosis was 2 years; 57(52%) participants reported that they were currently receiving treatment. The most frequently endorsed indicator of social toxicity was changes in work, school, or home life (46%), followed by PROMIS social function (28%), employment status (27%), feeling lonely or isolated (23%), relationship problems with spouse/partner (17%), and medication interference (6%). Individual indices moderately correlated with financial toxicity, anxiety, and depression (average r s=-.36, .39, and .45, respectively). The largest percentage of the sample (39%) had a social toxicity composite score of 0 (M=1.5; SD=1.5), with the remaining score distribution as follows:1(18%), 2(17%), 3(13%), 4(10%), 5(2%), 6(<1%). PROMIS anxiety (M=54.2; SD=10.8) and depression (M=50.8; SD=9.6) significantly correlated (p <.001) with social toxicity (r =.62 and .71, respectively), such that great social toxicity was related to greater anxiety and depression symptom burden. Social toxicity was also correlated with FACIT-COST (M=21.6; SD=13.0; r =-.60), such that greater social toxicity was related to worse financial well-being. Between groups analysis reveals more social toxicity among those aged 18-64 (n=46; M=1.8; SD=1.7) vs. those aged 65+ (n=63; M=1.2; SD=1.4; t =1.975, p <.05) as well as those who are currently receiving treatment (n=57; M=1.6; SD=1.4) vs. not (n=48; M=1.2; SD=1.7; t =1.311, p <.10).

Conclusions: The current findings suggest that social toxicity-negative social impact due to cancer diagnosis or treatment-can be assessed using a composite score of indices that reflect individuals' social activity and well-being across multiple life domains. While 39% of the sample reported no social toxicity, 69% had at least one of the selected indices, with the most frequent being changes in work, school, or home life. Social toxicity was significantly related to other patient reported outcomes with a larger magnitude correlation than that observed for individual indices, including anxiety, depression, and financial toxicity, thus indicating its potential importance in the larger cancer landscape, especially for those younger than 65 and those currently receiving treatment. Social toxicity is particularly important to investigate for patients dealing with

aggressive and costly cancers, such as AML, and methods of measurement for assessing social toxicity should continue to be explored in additional clinical populations to better align individuals with tailored support resources.

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