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S301 GERMAN AMLCG-SURVIVORSHIP STUDY: QUALITY OF LIFE AND LIFE SATISFACTION IN AML LONG-TERM SURVIVORS

Topic: 35. Quality of life, palliative care, ethics and health economics

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Background:

An increasing proportion of patients with acute myeloid leukemia (AML) become long-term survivors. Somatic and psycho-social outcomes in survivors are therefore becoming increasingly important, but little is known about the long-term effects of the disease and its treatment.

Aims: The primary aim of this study was to compare quality of life (QoL, measured by the FACT-G questionnaire) and general and health-related life satisfaction (gLS/hLS, measured by the FLZ-M questionnaire) of AML-LTS with normative data of German adults who were not diagnosed with AML.

Methods: We designed a comprehensive analysis of AML survivorship outcomes including psycho-social well-being and somatic health status and conducted a questionnaire-based study collecting data from AML long term survivors (AML-LTS). This report focuses on overall and health-related quality of life. Somatic morbidity in AML-LTS is reported separately (Moret et al.).

Results: 427 former AML patients who had been enrolled in AMLCG trials (AMLCG-1999, AMLCG-2004, AMLCG-2008) or the AMLCG patient registry, participated in this study between 5 and 18.6 years (y) after their initial AML diagnosis (median, 11.3y). Median age of AML-LTS was 61y (range 28y-93y), and 56% were female. Thirty-eight percent of participants had been treated with chemotherapy alone, while 62% received at least one allogeneic stem cell transplant (alloHSCT). A relapse occurred in 24% of the participants.

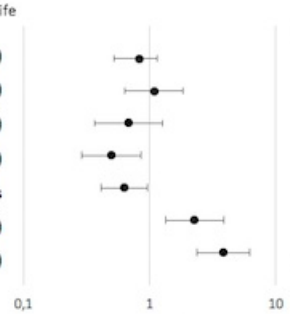
Unexpectedly, age- and sex-normalized quality of life and general life satisfaction summary scores were significantly higher in AML-LTS ($p<.001$) compared to adults without the diagnosis of AML. Raw score points of AML-LTS on the FACT-G summary scale also were higher than in age and sex-matched normal adults by a median of 4.7 points (95% CI: 2.82 – 7.2) – a differences that likely is clinically not relevant, considering an established cutoff for clinical relevance of 7 raw score points. No difference between AML-LTS and normal adults was found for health-related life satisfaction (hLS).

Using the cutoff for clinical importance (i.e., 7 points below age- and sex-matched population norm), 26.1% of participants reported relevant impairment of overall QoL. To identify factors potentially associated with poor overall QoL, we constructed a logistic regression model including pre-specified cofactors (age, sex, time since initial diagnosis, relapse and alloHSCT) and additional covariables that associated with QoL in univariate analyses (Figure 1). We found that participants with no children, lower educational level, shorter time since diagnosis and altered financial situation reported significantly lower QoL. No influence was found for disease- and treatment related

factors including treatment (alloHSCT vs. no alloHSCT), previous relapse, or *de novo* vs secondary or therapy-related AML.

Image:

Figure 1. Odds ratio for poor quality of life



	Odds Ratio	Lower CI	Upper CI	p-value
Sex (male vs. female)	0.83	0.52	1.13	.448
alloHSCT (yes vs. no)	1.08	0.63	1.85	.772
Relapse (yes vs. no)	0.68	0.37	1.27	.225
Children (yes vs. no)	0.50	0.29	0.85	**.011**
Time since diagnosis	0.63	0.41	0.97	**.042**
Education (high vs. low)	2.28	1.33	3.90	**.003**
Finances (no change/better vs. worse)	3.82	2.37	6.19	**<.001**

Figure contains factors included in the final model, with Sex, alloHSCT, and relapse being fixed factors
Time since diagnosis is plotted per 5 years

Summary/Conclusion: Unlike previous studies of AML survivorship, our large cohort included a diverse spectrum of patients regarding age, time since diagnosis, and treatment modalities, which allows for new insight into long-term QoL. Our study establishes that overall QoL in AML long-term survivors is comparable to the general population, with further improvement from five years post diagnosis onwards. Importantly, disease- and treatment-related factors, such as prior relapse or alloHSCT, are not associated with overall QoL. However, we were able to identify risk factors for worse QoL, delineating a subgroup of patients that may still have a need for targeted psycho-social interventions five or more years after an AML diagnosis.