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POSTER ABSTRACTS

905.OUTCOMES RESEARCH-LYMPHOID MALIGNANCIES

Impact of Survivorship Care Plans (SCP) on Mortality in a Contemporary Cohort of Pediatric Patients Diagnosed with a Blood Cancer

Sharon M. Castellino, MD MSc[1], *Rebecca Williamson Lewis, MPH*[2], *Karen E Effinger, MDMS*[3,2], *Ann C. Mertens, PhD MS*[1,2], *Joseph Lipscomb, PhD*[4], *Xu Ji, PhD MSPH*[5]

[1] Department of Pediatrics, Emory University School of Medicine, Atlanta, GA
[2] Aflac Cancer and Blood Disorders Center, Children's Healthcare of Atlanta, Atlanta, GA
[3] Pediatric Hematology/Oncology, Emory University, Atlanta, GA
[4] Department of Health Policy and Management, Emory University Rollins School of Public Health, Atlanta, GA
[5] Emory University / Children's Healthcare of Atlanta, Atlanta, GA

Background: The 5-year overall survival for pediatric blood cancer (i.e., leukemia, lymphoma) is greater than 85%. However, blood cancers and their treatment predispose survivors to the risk of late effects and premature mortality. This study examines the association between the receipt of a personalized survivorship care plan (SCP) and mortality among survivors of childhood blood cancer.
Methods: This retrospective cohort included survivors who were treated for a newly diagnosed blood cancer at Children's Healthcare of Atlanta (CHOA) between 2002-2016 and in remission for ≥2 years post-treatment (i.e., eligible to be seen in Aflac Cancer Survivor Clinic). Descriptive analyses were conducted to examine SCP receipt and mortality through 12/31/2020 based on linkage to the National Death Index. The cumulative incidence of death was estimated from the time of eligibility for survivor clinic until the date of death, 12/31/2020, or five years (y) post-eligibility date, whichever occurred earlier. A multivariable Cox proportional-hazard model was used, with SCP receipt as a time-dependent variable, to estimate the association between SCP receipt and 5-year mortality, controlling for age at diagnosis, sex, race/ethnicity, and cancer therapy exposure.
Results: Among the 1,239 eligible survivors identified, 982 (79.3%) received a SCP at a median time of 0.50 y (IQR: 0.21, 0.84 y) from eligibility for survivor clinic. Recipients of a SCP (vs. non-recipients) were more likely to be female (44.8% vs. 38.1%; p=0.055), non-Hispanic White (56.6% vs. 47.5%; p=0.006), and younger at the initial cancer diagnosis (mean ± SD age: 8.4 ± 5.4 vs. 11.0 ± 5.8 y; p<0.001). Receiving a SCP differed by cancer type: 82.3% of patients diagnosed with acute lymphoid leukemia (ALL), 86.3% of acute myeloid leukemia (AML) patients, and 80.6% of other leukemia patients received a SCP vs. 68.6% of Hodgkin lymphoma patients and 76.1% of non-Hodgkin lymphoma patients (p<0.001). Therapy exposure differed among SCP recipients, with 75.6% receiving chemotherapy alone, 12.9% chemotherapy and radiation therapy, and 11.5% stem cell transplantation (SCT)
The unadjusted 5-year survival was not significantly different between survivors who received a SCP and those who did not (98.8% [95% CI: 98.1, 99.6] vs. 96.4% [93.9%, 98.9%], p=0.065). In multivariable analysis, receipt of a SCP was marginally associated with a lower risk of death (adjusted hazard ratio [aHR]: 0.37 [95% CI: 0.14, 1.01], p=0.053; **Table 1**). Additionally, receipt of SCT (aHR: 9.16 [95% CI: 3.34, 25.1], p<0.001) was associated with a higher risk of death.
Conclusions: Early evaluation of our cohort eligible for a survivorship clinic suggests an association between the receipt of a SCP and a higher adjusted 5-year survival in pediatric blood cancer survivors. Receiving an SCT remains an independent risk factor for mortality. Longitudinal follow-up of this cohort allows for the assessment of mortality trajectory and pattern. Capture of healthcare utilization will inform the impact of survivorship care and further define lifetime risk after contemporary treatment.

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	Unadjusted HR (95% CI)	aHR (95% CI)
Receipt of SCP (ref. no SCP)	0.48 (0.18, 1.22)	0.37 (0.14, 1.01)
Age at cancer diagnosis (ref. < 15y)		
≥15 y	1.67 (0.66, 4.21)	1.54 (0.60, 3.94)
Sex (ref. female)		
Male	0.50 (0.18, 1.42)	0.54 (0.19, 1.54)
Race/Ethnicity (ref. non-Hispanic White)		
Non-White	1.57 (0.62, 3.97)	2.52 (0.6, 3.89)
Treatment exposure (ref. chemotherapy alone)		
Chemotherapy and radiation therapy	1.23 (0.26, 5.79)	0.96 (0.2, 4.61)
SCT	7.68 (2.88, 20.5)	9.16 (3.34, 25.1)

Figure 1

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