

The Advanced Practitioner's Role in Treating Older Adults With Hematologic Malignancies



Older adults (> 65 years) are expected to exceed 89 million by the year 2050, double the estimated 40 million in 2009 (Miller et al., 2019). Adults aged ≥ 85 years will increase three-fold to 19 million by 2060 (DeSantis et al.,

2019). Advanced age is a leading risk factor for developing cancer, and cancer remains the second most common cause of death.

Among hematologic malignancies, the median age at diagnosis is 65 to 76 years of age, and the estimated 5-year survival rates continue to improve (Table 1; Miller et al., 2019; Siegel et al., 2020). Leukemias, lymphomas, and myelomas are among the top 14 cancer diagnoses in the US (Siegel et al., 2020). Most of these diseases are incurable, with the inevitability of one or more relapses. However, treatment options continue to expand, contributing to the number of estimated survivors living with leukemias (451,700), non-Hodgkin lymphoma (757,710), and myeloma (131,392; Miller et al., 2019). The majority of these survivors will require additional treatment.

OLDER ADULTS IN CLINICAL TRIALS

All commercially available antineoplastic therapies have been a result of patients participating in clinical trials. Yet, only 2% to 4% of all cancer patients participate in clinical trials, and the number

of patients over the age of 65 participating in trials is estimated to be < 2%. In 2018, ASH convened a scientific working group to identify gaps and prioritize initiatives focused on hematology and aging. The gaps included (1) a need for age-specific preclinical models, (2) the study of multimorbidity, (3) adequate numbers of older adults enrolled in all phases of clinical trial development, (4) consistent interdisciplinary research and practices, and (5) consensus on geriatric assessments, frailty metrics, and screening tools (Rosko et al., 2018). Inclusion of older adults in clinical trials should always be considered for those meeting eligibility criteria.

TREATING OLDER ADULTS

Chronological age alone should not determine treatment. The estimated life expectancy at age 65 for males is 17.9 years and for females is 20.2 years (Table 2). Patients with cancer where the estimated life expectancy is relatively low should be considered for treatment regardless of age. The unique toxicity profile for patients treated for hematologic malignancies should be understood as well (Olin, 2019). Implementation of risk-adapted strategies that incorporate frailty assessment, geriatric assessment, comorbidities, disease attributes, available treatment options, and the patient's socioeconomic and personal wishes must be employed.

Postmarketing integration of newly approved agents requires the advanced practitioner in oncology to understand how each trial was run, what the inclusion and exclusion criteria were, what the efficacy and safety data are for the trial, and how these data can be applied to the general population. Given the limited number of treatment options available today, maximizing each treatment approach is essential.

Table 1. Epidemiology for Selected Hematologic Malignancies in the United States

Disease	New cases	Deaths	Median age at diagnosis (2012–2016)	5-year relative survival rate, all age and risk groups (1996–2004 ^a)	5-year relative survival rate, all age and risk groups (2009–2015)
NHL	77,240	19,940	67	65%	75%; 88% for follicular lymphoma and 63% for DLBCL
MM	32,270	12,830	68	35%	53%
CLL	21,040	4,060	70	76%	84%
AML	19,940	11,180	68	22%	31%
MDS	28,138	N/A	76	45% (3-year)	N/A
CML	8,450	1,130	65	50%	69%

Note. NHL = non-Hodgkin lymphoma; MM = multiple myeloma; CLL = chronic lymphocytic leukemia; AML = acute myelogenous leukemia; MDS = myelodysplastic syndromes; CML = chronic myelogenous leukemia; DLBCL = diffuse large B-cell lymphoma; N/A = not available. Information from DeSantis et al. (2019); Miller et al. (2019); Siegel et al. (2020).

^aExcludes myelodysplastic syndromes.

Advanced practitioners play a critical role in the prevention and early recognition of adverse events to mitigate their severity and improve the potential for therapeutic benefit. As the population of older adult patients with hematologic malignancies grows, the role of the advanced practitioner in oncology will become increasingly critical to managing these patients, particularly in rural and community settings (Coombs et al., 2019).

Nine abstracts from the 61st ASH Annual Meeting and Exposition held in Orlando, December 7 to 10, 2019, were selected applying the lens of clinical management of the older adult with a hematologic malignancy. Each of these abstracts provides insight into emerging therapies with specific application to the older adult. ●

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Table 2. Estimated Life Expectancy for Individuals Age ≥ 65 in the United States (2016)

Age	Male life expectancy (yr)	Female life expectancy (yr)
65	17.92	20.49
70	14.40	16.57
75	11.18	12.97
80	8.34	9.74
85	5.94	7.01
90	4.08	4.85
95	2.83	3.37
100	2.13	2.48

Note. Information from Social Security Administration (2016).