

# Physiologic and Psychological Symptoms Experienced by Adults With Acute Leukemia: An Integrative Literature Review

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About 16,202 adults in the United States aged 20 years or older are estimated to have been diagnosed with acute leukemia (AL) in 2013 (Howlander et al., 2013). Historically, the diagnosis of AL was linked with poor prognosis, particularly in older adults. Improvement in the treatment and management of the disease has led to trends in increased overall survival (Pulte, Gondos, & Brenner, 2010). The Surveillance Epidemiology and End Results reported the relative five-year survival rates from 2002–2008 for adults with acute myeloid leukemia (AML) or acute lymphoblastic leukemia (ALL) to be 24% and 65%, respectively (Howlander et al., 2012).

For adults diagnosed with AL, the acute and rapid nature of the disease requires emergent aggressive inpatient chemotherapy delivered over at least a week, depending on disease and treatment response. However, little is known about the physical and psychological symptoms in this unique population (Manitta, Zordan, Cole-Sinclair, Nandurkar, & Philip, 2011).

Given that the overall symptom burden in this population has not been examined, the objective of this article is to evaluate the current literature addressing the physiologic and psychological symptoms that adults with AL experience and to provide current evidence to inform both practice and future directions for research.

## Literature Search

An extensive search of literature reporting physiologic and psychological symptoms in adults with AL was completed using Ovid, PubMed, CINAHL®, and PsycINFO. Key words used for the search included *acute leukemia*, *symptoms*, *hematologic malignancy*, and *quality of life*, which also were used as exploded Medical Subject Headings terms. The electronic search was supplemented with a hand search of retrieved references to increase the inclusion of relevant literature. All articles included in the review reported the assessment of physiologic or psychological symptoms obtained by self-report in

**Purpose/Objectives:** To evaluate the current knowledge of symptoms experienced by adults with acute leukemia (AL) and provide evidence to inform practice and research.

**Data Sources:** Literature review using an electronic search supplemented by a hand search of current literature reporting the physiologic and/or psychological symptoms of patients with AL was conducted.

**Data Synthesis:** Because of the variability found in the methods and specific aims of the articles, a rating system was applied to score how strongly the findings contributed to meeting the aims of the research. This rating system was applied to assist the authors in analyzing the findings. Therefore, the articles that scored lower ultimately contributed less during the analysis phase.

**Conclusions:** Knowledge regarding the symptoms experienced by adults undergoing treatment is being slowly evaluated. However, to better understand and subsequently manage these symptoms, longitudinal research examining the symptom trajectories in this population is needed.

**Implications for Nursing:** Additional investigation into symptom characteristics will facilitate the development of tailored interventions to manage the temporal characteristics of symptoms for this population.

**Key Words:** acute leukemia; symptoms; literature review

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adults with AL during diagnosis or treatment at one or more time points. Articles were excluded from this review if they were not written in English, were published before 1990, detailed the effects of an intervention, and did not clearly identify the frequency or severity of symptoms experienced by patients. In addition, articles assessing symptoms in either hematopoietic stem cell transplantation (only) or survivors of AL post-treatment were not included in this analysis.

## Data Evaluation

Inherent in the methodologic approach of an integrative literature review is the variability of relevant data,