

# Patient-Reported Symptoms and Quality of Life in Adults With Acute Leukemia: A Systematic Review

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**L**eukemia has little age predilection; individuals have been diagnosed with the disease at various stages of life. Leukemia is a group of diseases that arise from the abnormal proliferation of mature myeloid and lymphocytic cells (National Cancer Institute [NCI], 2014c). Four types of leukemia exist: acute myelogenous leukemia (AML), acute lymphoblastic leukemia (ALL), chronic myelogenous leukemia, and chronic lymphoblastic leukemia (CLL). The term *acute leukemia* includes both AML and ALL. Acute leukemia is the most common hematologic cancer in the United States, with 21,800 new diagnoses and 11,900 deaths in 2014 (NCI, 2014a, 2014b). In 2011, an estimated 302,800 people were living with leukemia in the United States (NCI, 2014c). The five-year survival rate of a patient with leukemia is 57% (NCI, 2014c). AML and ALL are both commonly diagnosed in adults (NCI, 2014a, 2014b).

Acute leukemia presents aggressively, requiring intensive chemotherapy and prolonged hospital stays (Xuereb & Dunlop, 2003). Over time, gradual improvements have been made in remission and survival rates among adults with acute leukemia, but few treatment options exist, particularly for adults aged 60 years and older (Hiddemann et al., 1999; Stone, 2002). For adults with acute leukemia, induction chemotherapy is administered in the hospital during a three- to four-week stay. Expected treatment-related complications and symptoms include bone marrow suppression, neutropenic fever, and mucositis (Klepin et al., 2011; Stone, 2002). Symptoms are multidimensional, multiplicative in nature, and can occur solely or concurrently (Cleeland, 2007; Dodd et al., 2001). Symptoms are distressing and can disrupt activities of daily living, in addition to physical, social, emotional, and spiritual quality-of-life (QOL) domains. Albrecht

**Purpose/Objectives:** Systematically summarize findings from research conducted on adult acute leukemia survivors as they relate to symptoms and quality of life (QOL).

**Data Sources:** Systematic review of the literature from 1990–2013 found in the PubMed, PsycINFO®, EMBASE, and CINAHL® databases, as well as manual searches.

**Data Synthesis:** The review identified 16 quantitative studies and 1 qualitative study published from 1990–2013 that used a self-reported QOL or symptom questionnaire. Fatigue was the most commonly assessed and reported symptom, followed by depression.

**Conclusions:** Acute leukemia and its treatment have a significant impact in all QOL domains. Future studies should include longitudinal research, more than one recruitment site, increased minority representation, and home-based exercise interventions as ways to improve all domains of QOL.

**Implications for Nursing:** This review increases awareness of commonly reported symptoms faced by adults with acute leukemia. Oncology nurses are central in monitoring and reporting symptoms to the interdisciplinary team that may contribute to changes in function, with the overall goal of optimizing QOL over time.

**Key Words:** acute leukemia; acute leukemia survivors; quality of life; symptoms; patient-reported symptoms; systematic review

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(2014) conducted an integrative literature review of studies on adult acute leukemia survivors focused on physiologic and psychological symptoms and found variations in symptom severity and frequency. The current study builds on that review by summarizing findings of research conducted on adults with acute leukemia as they relate to symptoms and QOL, as reported directly by them.