Acalabrutinib

Nursing considerations for use in patients with chronic lymphocytic leukemia and small lymphocytic lymphoma

Pia Nierman, BSN

BACKGROUND: Acalabrutinib is a next-generation Bruton tyrosine kinase inhibitor (BTKi) that has moved to the forefront of treatment options for patients with chronic lymphocytic leukemia (CLL) or small lymphocytic lymphoma (SLL). Patients with CLL/SLL can experience adverse events and toxicities unique to BTKi therapy.

OBJECTIVES: This article provides an overview of nursing considerations for the treatment of patients with CLL/SLL with acalabrutinib, focusing on safety, toxicity management, and adherence.

METHODS: A review of information identified through structured searches of key publications and websites and data from pivotal clinical trials was performed.

FINDINGS: Increased awareness of the unique disease characteristics of patients with CLL/SLL and of the efficacy and safety profile of acalabrutinib allows nurses to play a vital role in improving patient outcomes. With this knowledge, nurses can support patients through education on potential side effects, drug–drug interactions, and treatment adherence, as well as monitor for clinical symptoms and laboratory findings requiring intervention.

KEYWORDS
acalabrutinib; chronic lymphocytic leukemia; adverse events

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CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) IS THE MOST COMMON adult leukemia and accounts for roughly 1% of all new cancers in the United States. It affects men more frequently than women and is more commonly diagnosed in older adults, with a mean age of 72 years at diagnosis (American Society of Clinical Oncology, 2020; Burger, 2020). Incidence is higher in those who are non-Hispanic White, followed by those who are Black, Hispanic White, or Asian/Pacific Islander (Zhao et al., 2018). Although the average five-year survival rate for people aged 20 years or older with CLL (85%) decreases with advancing age, survival rates vary based on prognostic markers and stage of the disease (Hallek et al., 2018; Sun & Wiestner, 2015).

CLL is a lymphoproliferative disorder characterized by the presence of mature clonal B cells (detected by flow cytometry) with a distinct pattern, or phenotype, of protein expression in the peripheral blood, bone marrow, and lymph nodes (Hallek et al., 2018; Rawstron et al., 2018). Small lymphocytic lymphoma (SLL), although phenotypically identical to CLL, has less peripheral blood involvement and more nodal disease involvement (National Cancer Institute, 2021). Despite the slightly different clinical presentation of SLL, CLL and SLL are essentially managed the same (Lymphoma Research Foundation, 2021). CLL/SLL can be evaluated with routine blood work, a complete diagnostic history that includes assessment for B symptoms (e.g., fevers, night sweats, fatigue, loss of appetite or early satiety), and a physical examination, including measurement of spleen and liver. The presence of lymphocytosis, enlarged lymph nodes, organomegaly, anemia, and/or thrombocytopenia determines the Rai stage of disease, a five-point staging system of lymphocytosis severity that determines prognosis and informs treament (American Society of Clinical Oncology, 2020; Moran et al., 2007; Rai et al., 1975). Although it is not required for the initial workup, additional testing and assessment of prognostic indicators can be useful when making treatment decisions (see Table 1). The clinical course is somewhat heterogeneous in that some patients have indolent disease and can be managed indefinitely using a watch-and-wait approach, whereas others may develop active disease and require treatment sooner (Burger, 2020).

Time to treatment initiation can be predicted using the patient's Rai stage at time of diagnosis and assessment of prognostic markers (Burger, 2020). Treatment of CLL/SLL is indicated for symptomatic or rapidly progressing disease, and evaluation of prognostic markers is critical to selecting the appropriate treatment. According to current National Comprehensive Cancer Network (NCCN, 2021) guidelines, possible treatment options