At a Glance

- Clofarabine, a second-generation purine nucleoside analog, has shown promising safety and efficacy results in clinical trials of adult patients with acute leukemia.
- Anorexia, nausea, vomiting, diarrhea, myelosuppression, hepatotoxicity, renal dysfunction, and anorexia. Careful patient monitoring is essential to ensure early identification and prompt intervention.
- Although clofarabine usually is administered on an inpatient basis, with careful monitoring, support, and education, many patients can subsequently be treated as outpatients.

Despite improvements in treatment, the outcome for some adult patients with acute or chronic leukemias remains poor. Clofarabine, a second-generation purine nucleoside analog, received U.S. Food and Drug Administration approval in 2004 for the treatment of pediatric patients with relapsed or refractory acute lymphocytic leukemia after at least two previous regimens. In addition, clinical studies have shown encouraging safety and efficacy results with clofarabine in the treatment of adult patients with various hematologic malignancies. Although most adult patients with leukemia receive the first course of clofarabine while hospitalized, many can be subsequently treated as outpatients with proper monitoring, support, and education. The most frequent side effects associated with clofarabine are gastrointestinal-related, myelosuppression, hepatotoxicity, renal dysfunction, and anorexia. Careful patient monitoring is essential to ensure early identification and prompt intervention. Younger patients and those of any age with no comorbid health issues, good performance status, and an adequate support network are more likely to tolerate outpatient clofarabine administration. Early identification and proactive pharmacologic and nonpharmacologic interventions may reduce the severity of these toxicities and prevent their progression. Patient education about strategies for prevention and management of symptoms also is essential.

Amanda Dressel, RN, BSN, CCRC, Monica Kwari, RN, BSN, CCRP, and Ann M. McGreal, RN, OCN®

Nursing Considerations for Optimal Outpatient Management of Adult Patients With Leukemia Treated With Clofarabine

Despite improvements in treatment, the outcome for some adult patients with acute or chronic leukemias remains poor. Clofarabine, a second-generation purine nucleoside analog, received U.S. Food and Drug Administration approval in 2004 for the treatment of pediatric patients with relapsed or refractory acute lymphocytic leukemia after at least two previous regimens. In addition, clinical studies have shown encouraging safety and efficacy results with clofarabine in the treatment of adult patients with various hematologic malignancies. Although most adult patients with leukemia receive the first course of clofarabine while hospitalized, many can be subsequently treated as outpatients with proper monitoring, support, and education. The most frequent side effects associated with clofarabine are gastrointestinal-related, myelosuppression, hepatotoxicity, renal dysfunction, and anorexia. Careful patient monitoring is essential to ensure early identification and prompt intervention. Younger patients and those of any age with no comorbid health issues, good performance status, and an adequate support network are more likely to tolerate outpatient clofarabine administration. Early identification and proactive pharmacologic and nonpharmacologic interventions may reduce the severity of these toxicities and prevent their progression. Patient education about strategies for prevention and management of symptoms also is essential.

Amanda Dressel, RN, BSN, CCRC, is a clinical research nurse in the Leukemia Clinical Research Center at the University of Michigan Medical Center in Ann Arbor; Monica Kwari, RN, BSN, CCRP, is a research nurse supervisor in the Department of Leukemia at the University of Texas M.D. Anderson Cancer Center in Houston; and Ann M. McGreal, RN, OCN®, is an oncology nurse clinician at Oncology Specialists, S.C., in Park Ridge, IL. Dressel and Kwari contributed equally as primary authors of this manuscript. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. Medical writing and editing support were provided by Genzyme Corporation. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the editorial staff. Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Clinical Journal of Oncology Nursing or the Oncology Nursing Society. (Submitted October 2009. Revision submitted April 2010. Accepted for publication June 21, 2010.)

Digital Object Identifier: 10.1188/11.CJON.E13-E23