Romidepsin: A New Drug for the Treatment of Cutaneous T-Cell Lymphoma

Robin Frye, RN, BSN, Mary Myers, BSN, PCCN, Karen C. Axelrod, RN, CWOCN, Elizabeth A. Ness, RN, MS, Richard L. Piekarz, MD, PhD, Susan E. Bates, MD, and Susan Booher, RN, MS

Patients with cutaneous T-cell lymphoma (CTCL) have a rare, disfiguring, and life-threatening subtype of non-Hodgkin lymphoma primarily localized to the skin. Their immune systems are altered and their skin is compromised. In addition, they are highly prone to infections—the most common cause of death in patients with this disease. Patients presenting with early-stage disease involvement typically are treated with topical therapies; patients with advanced-stage and recurrent disease require systemic treatment. Specialized knowledge is required by oncology healthcare providers to manage the wide array of symptoms experienced by these patients as a part of the natural course of this disease. A new drug, romidepsin, approved by the U.S. Food and Drug Administration, is indicated in the treatment of relapsed CTCL. The authors discuss use of romidepsin in the context of CTCL and the information needed to safely administer romidepsin and manage its side effects.

Robin Frye, RN, BSN, is a research nurse specialist in the Medical Oncology Branch at the Center for Cancer Research, National Cancer Institute (NCI), National Institutes of Health (NIH); Mary Myers, BSN, PCCN, is a clinical research nurse and Karen C. Axelrod, RN, CWOCN, is a wound, ostomy, and continence nurse consultant, both in Nursing and Patient Care Services at the Clinical Center at NIH; Elizabeth A. Ness, RN, MS, is the director of staff development at the Center for Cancer Research, NCI, NIH, all in Bethesda, MD; Richard L. Piekarz, MD, PhD, is a medical officer of the Cancer Therapy Evaluation Program at NCI, NIH, in Rockville, MD; and Susan E. Bates, MD, is a senior investigator in the Medical Oncology Branch and Susan Booher, RN, MS, is a research nurse specialist in the Dermatology Branch, both at NCI, NIH, in Bethesda. The authors take full responsibility for the content of the article. Romidepsin, NSC 630176, was provided by the Cancer Therapy Evaluation Program. This research was supported, in part, by the Intramural Research Program of the NIH, NCI, Center for Cancer Research, and by a CRADA with Gloucester Pharmaceuticals. The content of this publication does not necessarily reflect the views or policies of the Department of Health and Human Services, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government. 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 independent peer reviewers or 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. Frye can be reached at nurserobinf@yahoo.com, with copy to editor at CJONEditor@ons.org. (First submission December 2010. Revision submitted July 2011. Accepted for publication July 25, 2011.)

Digital Object Identifier:10.1188/12.CJON.195-204

Cutaneous T-cell lymphoma (CTCL) is a heterogeneous category of non-Hodgkin lymphoma involving the skin as the primary site of malignant T-lymphocyte proliferation. The malignant skin-homing lymphocytes also invade and traffic between the lymph system, blood, and visceral organs, creating variable and complex clinical presentations. Appearance, degree of blood involvement, histology, immunophenotypic profile, and prognosis can vary widely among patients, making treatment and nursing care a challenge. Mycosis fungoides (MF) and its leukemic variant, Sézary syndrome (SS), are the most common types of CTCL. A review of the rare disease CTCL is presented, followed by a discussion of the clinical development for romidepsin, which was approved by the U.S. Food and Drug Administration (FDA) for treatment of CTCL. Finally, the article will summarize drug administration interventions and nursing considerations for this complicated patient population.

Because treatment of patients with CTCL often moves from topical in early stage to systemic therapies in more advanced-stage disease, both dermatology and oncology are involved in determining the course of treatment. The CTCL disease course can be indolent or it can demonstrate rapid progression. Of the systemic options available for CTCL, traditional therapy includes biologics and a wide array of chemotherapeutic agents, maintaining control with varying success. Strategies to improve outcomes are an important area of clinical research for this patient population.

The chronicle of a new drug starts as compounds are screened preclinically for potential therapeutic value. For every 5,000 compounds screened, about five agents reach clinical trials in human participants and one of those, on average, will eventually be