

# Radioimmunotherapy With Tositumomab and Iodine-131 Tositumomab for Low-Grade Non-Hodgkin Lymphoma: Nursing Implications

Judith M. Estes, RN, MSN, NP, and Kathleen J. Clapp, RN, OCN®

**Purpose/Objectives:** To review radioimmunotherapy approaches for low-grade non-Hodgkin lymphoma (NHL) with a focus on tositumomab and iodine-131 tositumomab (Bexxar®, Corixa Corporation, Seattle, WA, and GlaxoSmithKline, Philadelphia, PA). Nursing implications for Bexxar therapy are reviewed, including radiation safety, patient education, and the management of therapy-related toxicities.

**Data Sources:** Journal articles, published research data, and clinical experience.

**Data Synthesis:** The Bexxar treatment regimen (using an anti-CD20 antibody) consists of a dosimetric administration followed 7–14 days later by a patient-specific therapeutic administration. Infusion-related adverse events and myelosuppression are manageable. Patient and caregiver education regarding the benefits of radioimmunotherapy, treatment protocols, and radiation safety precautions is necessary.

**Conclusions:** Bexxar therapy represents an important new treatment option for patients with low-grade NHL and can be administered on an outpatient basis.

**Implications for Nursing:** Nurses play a vital role in the success of a Bexxar therapy program by providing patient and caregiver education, patient monitoring, and coordinating treatment schedules.

## Key Points . . .

- ▶ Radiolabeled monoclonal antibodies have become an important addition to the treatment of low-grade non-Hodgkin lymphoma (NHL).
- ▶ Nursing has a critical role in the education, coordination, and management of patients receiving tositumomab and iodine-131 tositumomab.
- ▶ Patients can be treated safely with tositumomab and iodine-131 tositumomab with minimal disruption to their lives and minimal side effects.
- ▶ Currently, no cure exists for low-grade NHL; however, radioimmunotherapy presents a new class of drug with a proven response and minimal side effects.

clinically indolent and patients frequently are asymptomatic for years.

## Current Treatment Options

NHL treatment varies widely by histology, stage of disease, age, and physiologic status of the patient. Treatment approaches range from supportive to curative. Current options include watch and wait, chemotherapy, radiotherapy, hematopoietic stem cell transplant, and biologic therapy such as monoclonal antibodies (MAbs). The optimal treatment approach for NHL

**N**on-Hodgkin lymphoma (NHL) encompasses a diverse group of lymphoid neoplasms that vary greatly in clinical behavior, morphologic appearance, cellular origin, responsiveness to treatment, and curability (Rosenthal & Eyre, 1995). The most common hematologic cancer, NHL is also the sixth leading cause of cancer death and the second fastest-growing cancer in the United States. The American Cancer Society (ACS) estimated that 54,370 new cases will be diagnosed in the United States in 2004, resulting in 19,410 deaths. Since the early 1970s, the incidence for NHL has nearly doubled, rising at a rate of 4% per year or 50% during the past 15 years, which is one of the largest increases for any cancer group (ACS, 2004).

Low-grade lymphomas represent 20%–30% of NHL cases, with a median survival of 7.5–9 years (Rosenthal & Eyre, 1995). Low-grade lymphomas include follicular center cell lymphoma, B-cell chronic lymphocytic leukemia or small lymphocytic lymphoma, lymphoplasmacytoid lymphoma, mantle cell lymphoma, and marginal zone lymphoma (Harris et al., 1994). Approximately 90% of patients present with stage III or IV disease with generalized lymphadenopathy and bone marrow involvement (Rosenthal & Eyre). Despite widespread tumor involvement, low-grade lymphoma often is

*Judith M. Estes, RN, MSN, NP, is a nurse practitioner in hematology at the University of Michigan in Ann Arbor, and Kathleen J. Clapp, RN, OCN®, is the director of medical affairs at the NeoRx Corporation in Seattle, WA. At the time this article was written, Clapp was employed at the Corixa Corporation in Seattle, a manufacturer of Bexxar®, which is mentioned in this article. In addition, Estes is a consultant and speaker for Corixa Corporation and GlaxoSmithKline, the manufacturers of Bexxar. (Submitted November 2001. Accepted for publication January 29, 2004.) (Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Oncology Nursing Forum or the Oncology Nursing Society.)*

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