

## FEATURE ARTICLE

# Clinical Updates and Nursing Considerations for Patients With Multiple Myeloma

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Multiple myeloma accounts for approximately 1% of all new cancers and is characterized by abnormal plasma cell proliferation in the bone marrow. As a result, many patients develop bone lesions, hypercalcemia, anemia, and renal impairment. Although no cure exists for multiple myeloma, current treatments, such as oral melphalan and prednisone, can slow disease progression and prolong overall survival. Several new therapeutic options show promise: lenalidomide, thalidomide, liposomal doxorubicin, and bortezomib. Clinical research presented at the 2006 meeting of the American Society of Hematology, the 2007 meeting of the American Society of Clinical Oncology, and the 11th International Myeloma Workshop showed that newer therapeutic combinations were well tolerated and effective in patients with multiple myeloma. Oncology nurses, with their specialized knowledge of treatment administration and monitoring and their expertise in patient education, have an important role in the management of patients with multiple myeloma to help improve overall survival and quality of life. As newer regimens become available, oncology nurses must be aware of factors that optimize outcomes to help patients understand the benefits of treatment, how to manage side effects, and the importance of treatment adherence.

**H**ematologists and opinion leaders from around the world discussed some of the many innovative strategies currently under investigation for multiple myeloma, including pairing newer immunomodulatory and novel agents with older, standard drug therapies, at the 48th annual meeting of the American Society of Hematology (ASH) in December 2006, with updates in June 2007 at the 43rd annual meeting of the American Society of Clinical Oncology (ASCO) and the 11th International Myeloma Workshop (IMW). Clinical research was presented that may alter the current therapies administered to patients with newly diagnosed multiple myeloma, as well as those with relapsed or refractory disease. Such changes will have a significant effect on nursing and patient care. The aim of this article is to provide an overview of multiple myeloma, its current diagnosis and staging, and updated information about treatment research.

## Multiple Myeloma: An Overview

Multiple myeloma is a clonal B-cell tumor of slowly proliferating plasma cells in the bone marrow, accounting for approximately 1% of all new cancers (Vescio & Berenson, 2000). In the United States, 19,900 new patients are expected to be diagnosed with multiple myeloma in 2007, with more than 10,000 deaths resulting from the disease annually (American Cancer Society, 2007). The age of people with multiple myeloma ranges from 20–100 years and beyond, but peak occurrence of the disease is among people in their 50s–70s (Jemal et al., 2006). The strongest potential risk factors include age, radiation, and agricultural exposures (Hussein, 1994). Although multiple myeloma is an

### At a Glance

- ◆ Multiple myeloma is a cancer of the plasma cells in which abnormal plasma cells proliferate in the bone marrow, often resulting in bone lesions, hypercalcemia, anemia, and renal impairment.
- ◆ New therapeutic agents target the bone marrow microenvironment, which plays an important role in the development of malignant cells; the new treatment regimens may provide better outcomes than the current standard of care.
- ◆ As new treatment regimens become available, oncology nurses will be at the front line, helping patients understand the benefits of treatment, how to manage side effects, and the importance of treatment adherence.

incurable disease, better understanding of its biology has led to more treatment options, improved survival, and the development of new drugs, which currently are under investigation.

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