

# Oncology Nursing™

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U P D A T E

Clinical Investigator and Nursing Perspectives  
on the Management of Common Cancers

**FACULTY INTERVIEWS**

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**MULTIPLE  
MYELOMA EDITION**

**CNE**  
Activity

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## *Oncology Nursing Update Multiple Myeloma Edition*

### A Continuing Nursing Education Audio Series

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#### OVERVIEW OF ACTIVITY

Multiple myeloma (MM) is a plasma cell neoplasm that accounts for approximately 10% of all hematologic cancers and carries with it the worst death to new cases ratio (3 to 4). Patients with advanced active disease require immediate induction therapy to prepare eligible candidates for autologous stem cell transplant (ASCT). Optimal induction therapy for both ASCT candidates and those not eligible for transplant remains an area of clinical controversy, and multiple acceptable treatment options appear to merit consideration. Recent clinical research demonstrates an abundance of treatment options now available to patients with both newly diagnosed and relapsed or refractory MM. Published results from ongoing trials continually lead to the emergence of new therapeutic regimens and changes in the use of existing treatments. To provide oncology nurses with therapeutic strategies to address the disparate needs of patients with MM, the *Oncology Nursing Update* audio series employs one-on-one interviews with medical oncologists and nurses who are experts in caring for patients with MM. Upon completion of this CNE activity, oncology nurses should be able to formulate an up-to-date and more complete approach to the care of patients with MM.

#### PURPOSE STATEMENT

To present the most current research developments in MM and to provide the perspectives of a clinical investigator and nurse practitioner on the diagnosis and treatment of MM.

#### LEARNING OBJECTIVES

- Evaluate the benefits and risks associated with systemic therapies used in the evidence-based treatment of MM, including chemotherapy regimens, proteasome inhibitors, corticosteroids and immunomodulatory drugs (IMiDs).
- Develop a plan of care to manage the side effects associated with these therapies to support quality of life and continuation of treatment.
- Recognize the recent FDA approvals of carfilzomib and pomalidomide, and identify clinical situations in which these agents may be appropriate therapeutic options.
- Identify opportunities to enhance the collaborative role of oncology nurses in the comprehensive biopsychosocial care of patients with MM.

#### ACCREDITATION STATEMENT

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#### CREDIT DESIGNATION STATEMENT

This educational activity for 1.3 contact hours is provided by Research To Practice during the period of February 2014 through February 2015.

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This is an audio CNE program. This booklet contains CNE information, including learning objectives, faculty disclosures, a Post-test and an Educational Assessment and Credit Form. The corresponding website [ResearchToPractice.com/ONUMM114](http://ResearchToPractice.com/ONUMM114) also includes links to relevant abstracts and full-text articles.

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## CNE INFORMATION

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**FACULTY** — **Ms Miller** had no real or apparent conflicts of interest to disclose. The following faculty (and their spouses/partners) reported real or apparent conflicts of interest, which have been resolved through a conflict of interest resolution process: **Dr Raje** — Advisory Committee: Amgen Inc, Celgene Corporation; Consulting Agreements: Lilly, Millennium: The Takeda Oncology Company, Novartis Pharmaceuticals Corporation, Onyx Pharmaceuticals Inc; Contracted Research: Acetylon Pharmaceuticals Inc, Amgen Inc, Millennium: The Takeda Oncology Company, Novartis Pharmaceuticals Corporation.

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## SELECT PUBLICATIONS

**A randomized, multicenter, phase 3 study comparing carfilzomib, lenalidomide, and dexamethasone (CRd) vs lenalidomide and dexamethasone (Rd) in subjects with relapsed multiple myeloma.** [NCT01080391](#)

**A randomized, open-label phase 3 study of carfilzomib, melphalan, and prednisone versus bortezomib, melphalan, and prednisone in transplant-ineligible patients with newly diagnosed multiple myeloma.** [NCT01818752](#)

Arnulf B et al. **Updated survival analysis of a randomized phase III study of subcutaneous versus intravenous bortezomib in patients with relapsed multiple myeloma.** *Haematologica* 2012;97(12):1925-8.

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Badros AZ et al. **Carfilzomib in multiple myeloma patients with renal impairment: Pharmacokinetics and safety.** *Leukemia* 2013;27(8):1707-14.

Brighen S et al. **Efficacy and safety of once-weekly bortezomib in multiple myeloma patients.** *Blood* 2010;116(23):4745-53.

Cerrato C et al. **Optimal management of elderly patients with myeloma.** *Expert Rev Anticancer Ther* 2013;[Epub ahead of print].

Dimopoulos MA et al. **Pomalidomide in combination with low-dose dexamethasone: Demonstrates a significant progression free survival and overall survival advantage, in relapsed/refractory MM: A phase 3, multicenter, randomized, open-label study.** *Proc ASH* 2012;[Abstract LBA-6](#).

Fostier K et al. **Carfilzomib: A novel treatment in relapsed and refractory multiple myeloma.** *Oncotargets Ther* 2012;5:237-44.

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Kortuem KM, Stewart AK. **Carfilzomib.** *Blood* 2013;121(6):893-7.

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**Lenalidomide/bortezomib/dexamethasone for multiple myeloma (MM) (RVD lite).** [NCT01782963](#)

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McCarthy PL et al. **Lenalidomide after stem-cell transplantation for multiple myeloma.** *N Engl J Med* 2012;366(19):1770-81.

Moreau P et al. **Subcutaneous versus intravenous administration of bortezomib in patients with relapsed multiple myeloma: A randomised, phase 3, non-inferiority study.** *Lancet Oncol* 2011;12(5):431-40.

Nooka A et al. **Early versus delayed autologous stem cell transplant (ASCT) in patients receiving induction therapy with lenalidomide, bortezomib, and dexamethasone (RVD) for newly diagnosed multiple myeloma (MM).** *Proc ASCO* 2013;**Abstract 8540**.

Reeder CB et al. **Once- versus twice-weekly bortezomib induction therapy with CyBorD in newly diagnosed multiple myeloma.** *Blood* 2010;115(16):3416-7.

Reeder CB et al. **Cyclophosphamide, bortezomib and dexamethasone induction for newly diagnosed multiple myeloma: High response rates in a phase II clinical trial.** *Leukemia* 2009;23(7):1337-41.

Richardson PG et al. **Phase 1 study of pomalidomide MTD, safety, and efficacy in patients with refractory multiple myeloma who have received lenalidomide and bortezomib.** *Blood* 2013;121(11):1961-7.

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Siegel DS et al. **A phase 2 study of single-agent carfilzomib (PX-171-003-A1) in patients with relapsed and refractory multiple myeloma.** *Blood* 2012;120(14):2817-25.

Sonneveld P et al. **Bortezomib induction and maintenance treatment in patients with newly diagnosed multiple myeloma: Results of the randomized phase III HOVON-65/GMMG-HD4 trial.** *J Clin Oncol* 2012;30(24):2946-55.

Toureau C et al. **Effect of CMP, carfilzomib (CFZ) plus melphalan-prednisone (MP) on response rates in elderly patients with newly diagnosed multiple myeloma: Results of a phase I/II trial.** *Proc ASCO* 2013;**Abstract 8513**.

Vij R et al. **An open-label, single-arm, phase 2 (PX-171-004) study of single-agent carfilzomib in bortezomib-naïve patients with relapsed and/or refractory multiple myeloma.** *Blood* 2012;119(24):5661-70.

**QUESTIONS (PLEASE CIRCLE ANSWER):**

1. **The following statement is true regarding pomalidomide for the treatment of MM.**
  - a. Pomalidomide has high potency and is generally well tolerated
  - b. Pomalidomide was recently FDA approved in the relapsed/refractory setting
  - c. Pomalidomide can cause embryo-fetal toxicity
  - d. All of the above
2. **Which of the following approaches is associated with a lower rate of peripheral neuropathy than the standard twice-weekly intravenous administration of bortezomib?**
  - a. Subcutaneous administration
  - b. Weekly dosing schedule
  - c. Both a and b
3. **Bortezomib can be safely administered to patients with renal failure.**
  - a. True
  - b. False
4. **Recent studies have demonstrated that lenalidomide maintenance therapy after stem cell transplantation significantly improves progression-free survival compared to placebo for patients with MM.**
  - a. True
  - b. False
5. **Which of the following side effects is of concern when counseling patients with MM who are about to initiate treatment with lenalidomide?**
  - a. Rash
  - b. Myelosuppression
  - c. Thrombosis
  - d. All of the above
6. **Carfilzomib is associated with a lower incidence of peripheral neuropathy than that reported with bortezomib.**
  - a. True
  - b. False
7. **Which of the following is a common cause of renal failure — which may be reversible — in MM?**
  - a. Hypercalcemia
  - b. Long-term use of nonsteroidal anti-inflammatory drugs
  - c. Both a and b
8. **The dose of dexamethasone can be safely reduced for elderly patients with MM.**
  - a. True
  - b. False

EDUCATIONAL ASSESSMENT AND CREDIT FORM

Oncology Nursing Update Multiple Myeloma Edition — Issue 1, 2014

Research To Practice is committed to providing valuable continuing education for oncology clinicians, and your input is critical to helping us achieve this important goal. Please take the time to assess the activity you just completed, with the assurance that your answers and suggestions are strictly confidential.

**PART 1 — Please tell us about your experience with this educational activity**

**How would you characterize your level of knowledge on the following topics?**

4 = Excellent      3 = Good      2 = Adequate      1 = Suboptimal

	BEFORE	AFTER
Approaches to mitigate bortezomib-associated neuropathy with subcutaneous administration	4 3 2 1	4 3 2 1
Newly approved therapeutic options for patients with relapsed or refractory MM (eg, carfilzomib, pomalidomide)	4 3 2 1	4 3 2 1
Consideration of the “RVD lite” regimen for older patients	4 3 2 1	4 3 2 1
Counseling patients with MM who are about to begin maintenance therapy	4 3 2 1	4 3 2 1

**Has the activity unfairly influenced you toward a particular product or service?**

☐ Yes      ☐ No

If yes, please describe what was presented: .....

**Will this activity help you improve patient care?**

☐ Yes      ☐ No      ☐ Not applicable

If yes, how will it help you improve patient care? .....

**Did the activity meet your educational needs and expectations?**

☐ Yes      ☐ No

If no, please explain: .....

**Please respond to the following learning objectives (LOs) by circling the appropriate selection:**

4 = Yes    3 = Will consider    2 = No    1 = Already doing    N/M = LO not met    N/A = Not applicable

**As a result of this activity, I will be able to:**

- Evaluate the benefits and risks associated with systemic therapies used in the evidence-based treatment of MM, including chemotherapy regimens, proteasome inhibitors, corticosteroids and immunomodulatory drugs (IMiDs). . . .4 3 2 1 N/M N/A
- Develop a plan of care to manage the side effects associated with these therapies to support quality of life and continuation of treatment. . . .4 3 2 1 N/M N/A
- Recognize the recent FDA approvals of carfilzomib and pomalidomide, and identify clinical situations in which these agents may be appropriate therapeutic options. . . .4 3 2 1 N/M N/A
- Identify opportunities to enhance the collaborative role of oncology nurses in the comprehensive biopsychosocial care of patients with MM. . . .4 3 2 1 N/M N/A

EDUCATIONAL ASSESSMENT AND CREDIT FORM (continued)

What other practice changes will you make or consider making as a result of this activity?

What additional information or training do you need on the activity topics or other oncology-related topics?

Additional comments about this activity:

As part of our ongoing, continuous quality-improvement effort, we conduct postactivity follow-up surveys to assess the impact of our educational interventions on professional practice. Please indicate your willingness to participate in such a survey.

- ☐ Yes, I am willing to participate in a follow-up survey.  
☐ No, I am not willing to participate in a follow-up survey.

**PART 2 — Please tell us about the faculty and editor for this educational activity**

	4 = Excellent	3 = Good	2 = Adequate	1 = Suboptimal	
Faculty	Knowledge of subject matter				Effectiveness as an educator
Noopur Raje, MD	4	3	2	1	4 3 2 1
Kena C Miller, ARNP	4	3	2	1	4 3 2 1
Editor	Knowledge of subject matter				Effectiveness as an educator
Neil Love, MD	4	3	2	1	4 3 2 1

Please recommend additional faculty for future activities:

Other comments about the faculty and editor for this activity:

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Professional Designation:

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