

Clinical Investigators Provide Their Perspectives on Challenging Cases and Controversies in the Management of Multiple Myeloma

## CME INFORMATION

#### **TARGET AUDIENCE**

This activity is intended for hematologists, medical oncologists, hematology-oncology fellows and other healthcare providers involved in the treatment of multiple myeloma (MM).

#### **OVERVIEW OF ACTIVITY**

It is estimated that approximately 148,040 new lymphoid and myeloid cancer cases will be identified in the United States in the year 2012, and 65,900 individuals will die from these diseases. Importantly, there are currently over 45 drug products labeled for use in the management of hematologic malignancies, comprising more than 55 distinct FDA-approved indications. While this extensive list of available treatment options is reassuring for patients and oncology healthcare professionals, it poses quite a challenge to the practicing clinician who must maintain up-to-date knowledge of appropriate clinical management strategies across a vast spectrum of liquid and solid tumors.

These proceedings from a case-based CME symposium combine the perspectives of 5 renowned investigators on a number of controversial issues in the diagnosis and treatment of MM with a review of emerging research information in this area to assist medical oncologists, hematology-oncology fellows and other healthcare providers as they attempt to formulate optimal disease management strategies in the face of a constantly evolving body of knowledge.

#### LEARNING OBJECTIVES

- Integrate the results of emerging clinical research into the selection of optimal systemic therapy for patients with MM who are eligible and ineligible for stem cell transplant.
- Use biomarkers to assess risk for patients with MM, and recommend systemic treatment commensurate with prognosis and likelihood of therapeutic response.
- Compare and contrast patient outcomes with lenalidomideand bortezomib-based induction therapy, and consider the role of combined immunomodulatory and proteasome inhibitor regimens.

- Communicate the benefits and risks of postinduction maintenance therapy to appropriately selected patients with MM.
- Recognize treatment-associated side effects, and offer patients acceptable alternative dosing/administration and/or supportive management interventions to address them.
- Evaluate the safety profiles and response outcomes observed in studies of next-generation proteasome inhibitors and immunomodulatory agents for patients with MM.
- Counsel appropriately selected patients with MM about participation in ongoing clinical trials investigating novel therapeutic agents and strategies.

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#### **CREDIT DESIGNATION STATEMENT**

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This CME activity consists of a video component. To receive credit, the participant should watch the video, complete the Post-test with a score of 70% or better and fill out the Educational Assessment and Credit Form located at ResearchToPractice.com/SecondOpinionMM13/CME.

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**FACULTY** — 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:

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#### Hardware/Software Requirements:

A high-speed Internet connection A monitor set to 1280 x 1024 pixels or more Internet Explorer 7 or later, Firefox 3.0 or later, Chrome, Safari 3.0 or later Adobe Flash Player 10.2 plug-in or later Adobe Acrobat Reader (Optional) Sound card and speakers for audio

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# SELECT PUBLICATIONS

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.

Attal M et al. Lenalidomide maintenance after stem-cell transplantation for multiple myeloma. *N Engl J Med* 2012;366(19):1782-91.

Boccadoro M et al. Melphalan/prednisone/lenalidomide (MPR) versus high-dose melphalan and autologous transplantation (MEL200) in newly diagnosed multiple myeloma (MM) patients: A phase III trial. *Proc ASCO* 2011; Abstract 8020.

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

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. Onco Targets Ther 2012;5:237-44.

Jakubowiak AJ et al. A phase 1/2 study of carfilzomib in combination with lenalidomide and low-dose dexamethasone as a frontline treatment for multiple myeloma. *Blood* 2012;120(9):1801-9.

Lendvai N et al. Phase II study of infusional carfilzomib in patients with relapsed or refractory multiple myeloma. *Proc ASH* 2012; Abstract 947.

Lonial S et al. Phase I study of twice-weekly dosing of the investigational oral proteasome inhibitor MLN9708 in patients (pts) with relapsed and/or refractory multiple myeloma (MM). *Proc ASCO* 2012; Abstract 8017.

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.

Moreau P et al. A phase 3 prospective randomized international study (MMY-3021) comparing subcutaneous and intravenous administration of bortezomib in patients with relapsed multiple myeloma. *Proc ASH* 2010; Abstract 312.

Palumbo A et al. Carfilzomib, cyclophosphamide and dexamethasone (CCd) for newly diagnosed multiple myeloma (MM) patients. *Proc ASH* 2012; Abstract 730.

Palumbo A, Anderson K. Multiple myeloma. N Engl J Med 2011;364(11):1046-60.

Rajkumar SV. Multiple myeloma: 2011 update on diagnosis, risk-stratification, and management. *Am J Hematol* 2011;86(1):57-65.

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

Richardson PG et al. Oral weekly MLN9708, an investigational proteasome inhibitor, in combination with lenalidomide and dexamethasone in patients (pts) with previously untreated multiple myeloma (MM): A phase I/II study. *Proc ASCO* 2012; Abstract 8033.

Richardson PG et al. Lenalidomide, bortezomib, and dexamethasone combination therapy in patients with newly diagnosed multiple myeloma. *Blood* 2010;116(5):679-86.

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.

Singhal S et al. Integrated safety from Phase 2 studies of monotherapy carfilzomib in patients with relapsed and refractory multiple myeloma (MM): An updated analysis. *Proc ASH* 2011; Abstract 1876.