# INTERNATIONAL SECOND OPINION

Part II: Case-Based Discussions Focused on the Management of Multiple Myeloma

#### 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**

Taken together, it is estimated that approximately 148,040 new lymphoid and myeloid cancer cases were identified in the United States in the year 2012, and 54,380 individuals died from these diseases. Of importance, currently more than 50 drug products are labeled for use in the management of hematologic cancers, with more than 60 distinct FDA-approved indications. Although this extensive list of available treatment options is reassuring for patients and oncology healthcare professionals, it poses 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 CME symposium during the 54<sup>th</sup> ASH Annual Meeting use the perspectives of renowned experts in the field of hematologic oncology on cases provided by an international panel of community oncologists from the United States, India, Italy and Spain to frame a relevant discussion of the optimal management of MM. By providing information on the latest research developments and their potential application to routine practice, this activity is designed to assist hematologists, medical oncologists and hematology-oncology fellows with the formulation of up-to-date clinical management strategies for MM.

### LEARNING OBJECTIVES

- Appraise recent data on therapeutic advances and changing practice standards in MM, and integrate this information, as appropriate, into current clinical care.
- Use prognostic and predictive clinical and molecular markers to aid in treatment decision-making for MM.

- Compare and contrast the benefits and risks of immunomodulatory agents, proteasome inhibitors or both as systemic treatment for active MM.
- Identify patients with MM who may benefit from maintenance systemic treatment in both the post-transplant and nontransplant settings.
- Recall new data with investigational agents demonstrating promising activity in MM.
- Assess ongoing clinical trials evaluating innovative investigational approaches for MM, and obtain consent from appropriate patients for study participation.

# **ACCREDITATION STATEMENT**

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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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**MODERATOR** — Dr Love is president and CEO of Research To Practice, which receives funds in the form of educational grants to develop CME activities from the following commercial interests: AbbVie Inc, Algeta US, Allos Therapeutics, Amgen Inc, ArQule Inc, Astellas, Aveo Pharmaceuticals, Bayer HealthCare Pharmaceuticals, Biodesix Inc, Biogen Idec, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Daiichi Sankyo Inc, Dendreon Corporation, Eisai Inc, EMD Serono Inc, Foundation Medicine Inc, Genentech BioOncology, Genomic Health Inc, Gilead Sciences Inc, Incyte Corporation, Lilly USA LLC, Medivation Inc, Merck, Millennium: The Takeda Oncology Company, Mundipharma International Limited, Novartis Pharmaceuticals Corporation, Onyx Pharmaceuticals Inc, Prometheus Laboratories Inc, Regeneron Pharmaceuticals,

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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 Last review date: March 2013

Expiration date: March 2014

# Select Publications

# Sergio Giralt, MD

Cavo M et al. Bortezomib-thalidomide-dexamethasone is superior to thalidomide-dexamethasone as consolidation therapy after autologous hematopoietic stem cell transplantation in patients with newly diagnosed multiple myeloma. *Blood* 2012;120(1):9-19.

Cavo M et al. Superior complete response rate and progression-free survival after autologous transplantation with up-front Velcade-thalidomide-dexamethasone compared with thalidomide-dexamethasone in newly diagnosed multiple myeloma. *Proc* ASH 2008; Abstract 158.

Gleason C et al. Effect of lenalidomide, bortezomib, and dexamethasone (RVD) induction therapy in transplant-eligible patients (Pts) with newly diagnosed multiple myeloma (MM) on CR rates and survival. *Proc ASCO* 2012; Abstract 8101.

Nooka AK et al. The improved efficacy of bortezomib containing induction regimens (BCIR) versus non-bortezomib containing induction regimens (NBCIR) in transplant-eligible patients with multiple myeloma (MM): Meta-analysis of Phase III randomized controlled trials (RCTs). *Proc ASH* 2011; Abstract 3994.

Palumbo A et al. A prospective, randomized study of melphalan, prednisone, lenalidomide (MPR) versus melphalan (200 mg/m<sup>2</sup>) and autologous transplantation (Mel200) in newly diagnosed myeloma patients: An interim analysis. *Proc ASH* 2009;Abstract 350.

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

### A Keith Stewart, MBChB

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

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

Palumbo AP et al. Incidence of second primary malignancy (SPM) in melphalan-prednisone-lenalidomide combination followed by lenalidomide maintenance (MPR-R) in newly diagnosed multiple myeloma (MM) patients  $\geq$  65 years. *Proc ASCO* 2011; Abstract 8007.

Schuster SR et al. Cereblon expression predicts response, progression free and overall survival after pomalidomide and dexamethasone therapy in multiple myeloma. *Proc ASH* 2012; Abstract 194.

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.

Stewart AK et al. A randomized Phase III trial of thalidomide and prednisone as maintenance therapy following autologous stem cell transplantation (ASCT) in patients with multiple myeloma (MM): The NCIC CTG MY.10 trial. *Proc ASH* 2010; Abstract 39.

#### Ravi Vij, MD

Augustson BM et al. Early mortality after diagnosis of multiple myeloma: Analysis of patients entered onto the United Kingdom Medical Research Council trials between 1980 and 2002 — Medical Research Council Adult Leukaemia Working Party. *J Clin Oncol* 2005;23(36):9219-26.

Blade J et al. Renal failure in multiple myeloma: Presenting features and predictors of outcome in 94 patients from a single institution. Arch Intern Med 1998;158(17):1889-93.

Fayers PM et al. Thalidomide for previously untreated elderly patients with multiple myeloma: Meta-analysis of 1685 individual patient data from 6 randomized clinical trials. *Blood* 2011;118(5):1239-47.

Gay F et al. Complete response correlates with long-term progression-free and overall survival in elderly myeloma treated with novel agents: Analysis of 1175 patients. *Blood* 2011;117(11):3025-31.

Ludwig H et al. Thalidomide-dexamethasone compared with melphalan-prednisolone in elderly patients with multiple myeloma. *Blood* 2009;113(15):3435-42.

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.

Niesvizky R et al. Efficacy and safety of three bortezomib-based combinations in elderly, newly diagnosed multiple myeloma patients: Results from all randomized patients in the community-based, phase 3b UPFRONT study. *Proc ASH* 2011;Abstract 478.

Palumbo A et al. **Continuous lenalidomide treatment for newly diagnosed multiple myeloma.** *N Engl J Med* 2012;366(19):1759-69.

Palumbo A et al. Personalized therapy in multiple myeloma according to patient age and vulnerability: A report of the European Myeloma Network (EMN). *Blood* 2011;118:4519-29.

# Donna E Reece, MD

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 III, multicenter, randomized, open-label study. *Proc* ASH 2012;Abstract LBA-6.

Lonial S et al. Elotuzumab in combination with lenalidomide and low-dose dexamethasone in relapsed or refractory multiple myeloma. *J Clin Oncol* 2012;30(16):1953-9.

Richardson PG et al. Phase II study of the pan-deacetylase inhibitor panobinostat in combination with bortezomib and dexamethasone in relapsed and bortezomib-refractory multiple myeloma (PANORAMA 2). *Proc ASH* 2011; Abstract 814.

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(4):2817-25.

Siegel DS et al. Vantage 095: Vorinostat in combination with bortezomib in salvage multiple myeloma patients: Final study results of a global Phase 2b trial. *Proc ASH* 2011; Abstract 480.

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.

Vij R et al. Pomalidomide (POM) with or without low-dose dexamethasone (LoDEX) in patients (pts) with relapsed/refractory multiple myeloma (RRMM): Outcomes in pts refractory to lenalidomide (LEN) and/or bortezomib (BORT). *Proc ASCO* 2012;Abstract 8016.

Zonder JA et al. A phase 1, multicenter, open-label, dose escalation study of elotuzumab in patients with advanced multiple myeloma. *Blood* 2012;120(3):552-9.

### Meletios A Dimopoulos, MD

Gimsing P et al. Effect of pamidronate 30 mg versus 90 mg on physical function in patients with newly diagnosed multiple myeloma (Nordic Myeloma Study Group): A double-blind, randomised controlled trial. *Lancet Oncol* 2010;11(10):973-82.

Henry DH et al. Randomized, double-blind study of denosumab versus zoledronic acid in the treatment of bone metastases in patients with advanced cancer (excluding breast and prostate cancer) or multiple myeloma. *J Clin Oncol* 2011;29(9):1125-32.

Morgan GJ et al. Effects of induction and maintenance plus long-term bisphosphonates on bone disease in patients with multiple myeloma: The Medical Research Council Myeloma IX trial. *Blood* 2012;119(23):5374-83.

Morgan GJ et al. First-line treatment with zoledronic acid as compared with clodronic acid in multiple myeloma (MRC Myeloma IX): A randomised controlled trial. *Lancet* 2010;376(9757):1989-99.

Rosen LS et al. Long-term efficacy and safety of zoledronic acid compared with pamidronate disodium in the treatment of skeletal complications in patients with advanced multiple myeloma or breast carcinoma: A randomized, double-blind, multi-center, comparative trial. *Cancer* 2003;98(8):1735-44.

Zamagni E et al. Prognostic relevance of 18-F FDG PET/CT in newly diagnosed multiple myeloma patients treated with up-front autologous transplantation. *Blood* 2011;118(23):5989-95.