
Multiple Myeloma Update

From the 51st Annual Meeting of
the American Society of Hematology (ASH)



TRANSCRIPT

Welcome and Introduction

Anne Quinn Young, MPH

Hello everyone and welcome to the Multiple Myeloma Update From the 51st Annual Meeting of the American Society of Hematology (ASH) meeting. My name is Anne Quinn Young, MPH, and I'm Vice President of Communications at the Multiple Myeloma Research Foundation.

The MMRF is pleased to provide this update to patients, caregivers, and healthcare providers. Healthcare providers will be interested to know that this CME activity is jointly sponsored by the Postgraduate Institute for Medicine, cancereducation.com, and the MMRF.

I'd like to thank and recognize our commercial supporters, Celgene, Millennium, Bristol-Myers Squibb, and Merck & Company, for their support of this activity.

Today I have the distinct pleasure of speaking with key speakers and moderators here at the ASH meeting. I'd like to welcome Dr. Antonio Palumbo from the University of Turin in Torino, Italy, and Dr. Keith Stewart from the Mayo Clinic in Scottsdale, Arizona.

Welcome and thank you for joining us today.

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TRANSCRIPT

Upfront and Induction Therapy

Not Eligible for Transplant

Anne Quinn Young, MPH

So it's very exciting that at this meeting there's a myeloma abstract in the plenary session. Can you tell us a bit about the results of this trial looking at VMP (Velcade® [bortezomib]/melphalan/prednisone) versus VTP (bortezomib/thalidomide/prednisone) followed by maintenance therapy?

Dr. Antonio Palumbo

Yes, from this respect and we considered the elderly patients. The combination, the bortezomib plus melphalan seems to be superior to a combination including the two drugs, bortezomib and thalidomide. Not in terms of efficacy because the efficacy is quite similar with the two-drug combination. But in terms of safety, bortezomib plus an alkylating agent seems to give a better safety profile in comparison to the VTP combination.

Anne Quinn Young, MPH

Dr. Palumbo, you presented the results of two Phase III trials enrolling elderly patients who were ineligible for transplant. Can you tell us a bit about the results of these trials?

Dr. Antonio Palumbo

Yes, I am going to present two important trials for the treatment of elderly patients. One trial is including a four-drug combination of bortezomib, melphalan, prednisone, and thalidomide, followed by maintenance with bortezomib and thalidomide. And this combination has been compared with, what is now considered one of the best standards of treatment for elderly patients such as the VMP combination.

The results of this trial shows that the four-drug combination, followed by maintenance, significantly increased the CR (complete response) rate with almost a doubling in the CR rate and also significantly prolonged the remission duration in comparison to the standard VMP.

So the conclusion could be that adding four drugs, and especially adding maintenance after the four drugs, this could further improve the benefit of one of the best standard of care available today, VMP.

Regarding the second study, this is a randomized study that is comparing MP (melphalan/prednisone) plus Revlimid® (lenalidomide) that follow maintenance with lenalidomide versus MP alone. And the study is showing significant superiority for this combination followed by maintenance in comparison to MP alone, both in terms of response rate and progression-free survival.

So the treatment paradigm for this lenalidomide combination, including an alkylating agent, is to deliver upfront a combination of an alkylating agent plus lenalidomide to have a fast, a quick response rate. And then follow this induction with maintenance to significantly prolong the remission duration.

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Anne Quinn Young, MPH

So for both of you, if we were to fast forward or look into a crystal ball for 12 to 18 months from now, what do you think the standard of care will be for patients who are not eligible for transplant?

Dr. Antonio Palumbo

The standard of care for patients not eligible for autologous transplant is, at present, divided between MP plus thalidomide or MP plus bortezomib or MP plus lenalidomide. So we do not have at present one combination that we can say this is the best over all the other.

To assess this, we should have a randomized trial comparing these three combinations.

Dr. Keith Stewart

I think Dr. Palumbo is being too modest. There are two very exciting abstracts at this meeting. The first shows that the combination of lenalidomide with melphalan/prednisone over melphalan/prednisone alone is substantially better in some respects. And one of the messages from that trial will be that the patients have to stay on therapy longer than we had previously assumed. It is very important that patients continue on some form of maintenance therapy; it seems to be becoming apparent. He will also show that four-drug combination that he just described is better than a three-drug combination which, looking forward, suggests that in most patients, some three- or four-drug combination will completely replace melphalan/prednisone and that some kind of maintenance therapy will be more commonly employed.

Anne Quinn Young, MPH

So based on the data presented at this meeting, is it fair to say, as Dr. Stewart just did, that a majority or perhaps all patients in this population should be on some form of maintenance.

Dr. Antonio Palumbo

Certainly, yes, I think I completely agree with Dr. Stewart that the maintenance approach is becoming more and more prominent and more and more data are showing that maintenance is important to prolong the duration of remission. We have data coming from a bortezomib maintenance trial. We have data coming from lenalidomide maintenance trials. So from this point of view, certainly maintenance will become in the future a standard of care.

Dr. Keith Stewart

It may be slightly premature to consider it a done deal at this point, but the emerging evidence, and I think the thought leader movement, is in the direction of maintenance therapy for sure. But we'll probably need one or two more trials before we're completely convinced. There's always the concern that using all of your drugs early might limit your options at relapse, and it will take many years until we know whether survival is the same. We know right now you can maintain myeloma for longer periods of time, but we have to wait to see if not having those drugs available later on becomes a problem.

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Eligible for Transplant

Anne Quinn Young, MPH

Now moving on to patients who are eligible for autologous stem cell transplant, there are a number of new combination regimens under investigation in this setting from a number of Phase II and Phase III trials presented here. Can you give an overview of the results of what some of these combinations are and what they're showing in terms of improving outcomes following stem cell transplant?

Dr. Antonio Palumbo

Certainly in this setting, there are more mature data showing that a combination including bortezomib plus dexamethasone, coming from the French group or a combination including bortezomib/ thalidomide/dexamethasone coming from the Italian group or even combination including bortezomib, doxorubicin (Doxil[®]) and dexamethasone coming from the group showing that this combination as induction before autologous transplant should now really be considered a standard of care because this combination had increasing response rate and progression-free survival.

There is a discussion including if we should use a two-drug combination or three-drug combination, and from this point of view, it's not yet quite clear. The impression is that the three-drug combination should be used, should give better results in comparison to the two-drug combination.

Dr. Keith Stewart

There are a couple of other points to be made from treatment with combination therapy at diagnosis. The first is an abstract on a trial called EVOLUTION, and that looked at three drugs, a different set of three drugs and then a four-drug cocktail of Cytosan[®] (cyclophosphamide), bortezomib, lenalidomide, dexamethasone. The message from that study so far is that as you add new active drugs, each one you add increases response rate by maybe 5%. But, of course, which each new drug you add, toxicity also starts to be more prevalent. And so at some point there will be a balance between maximum efficacy and tolerability of the therapies. I don't think we've quite gotten there yet, but we're probably broaching that.

Anne Quinn Young, MPH

So how have some of these new combinations impacted standard of care today or, moving forward from this meeting, I'd love to hear from the European perspective as well as from the American perspective.

Dr. Antonio Palumbo

Well, from a European perspective, I believe that a three-drug combination and probably combination including bortezomib plus cyclophosphamide or bortezomib plus thalidomide might represent the majority or more frequent treatment to this induction before autologous transplant.

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Dr. Keith Stewart

I think in the United States, there's been a fairly rapid movement to move toward combination therapies. A lot of patients will still receive bortezomib/dexamethasone or lenalidomide/dexamethasone as their initial therapy, but more and more at our own center where patients are referred in by the community, we see the community already beginning to use bortezomib plus lenalidomide or bortezomib plus doxorubicin or cyclophosphamide/bortezomib/dexamethasone. And certainly in our center, a three-drug combination has become our standard of care. The response rates are significantly higher, and the depth of response is significantly higher. Almost everybody responds to these drugs when used in combination, and they respond quickly, and many of them will enter complete remission even before getting to transplant.

Anne Quinn Young, MPH

Are you finding that you're treating patients who are standard risk any differently than those who are higher risk or will everyone typically receive a similar induction regimen?

Dr. Keith Stewart

I think it's variable by physician. Some of us might, myself for example, are treating everybody with triplet therapy. But colleagues are continuing to treat only higher genetic-risk patients with combinations and are more comfortable being more conservative with standard-risk patients using, for example, lenalidomide/dexamethasone because that does have very good results. And they are of the opinion that you can save some combinations maybe for later in the disease course. So there's still, variability in what people are doing. But more and more I see people switching to the combination of three drugs.

One has to be a bit careful because lenalidomide, for example, is not yet approved for treatment of the newly diagnosed patient. However, it is widely available.

Anne Quinn Young, MPH

And we don't have the clinical trial data necessarily in a Phase III setting to support any of these.

Dr. Keith Stewart

No, that is absolutely correct. There's no Phase III data. We have Phase II data showing high response rates, rapid responses, and the assumption that that will ultimately translate into benefit, but that still has to be proven.

Anne Quinn Young, MPH

So are you seeing any difference between standard-risk and higher-risk patients and how you treat them?

Dr. Antonio Palumbo

I don't know. From a European point of view, but probably more from a personal point of view, I don't really see a difference in treatment of a standard-risk patient or a high-risk patient because I do see a risk in undertreating a patient with the standard risk of myeloma because probably in those patients we might reach the best results with more intensive treatment.

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Dr. Keith Stewart

I think one thing we can see is we have, and perhaps we'll discuss it later, there is clearly a high-risk population. What is apparent for those patients is that, particularly for those patients, staying on some form of, first of all, entry and complete remission, and, secondly, keeping the patient in complete remission seems to be critical. So for those patients in particular, we have tended to move quickly toward maintenance therapy, whereas in a standard-dose patient, we are more flexible in whether we employ that or not.

So we have also, for the other area in which we sometimes debate differences between the two populations is in transplant. Since transplant on its own isn't very effective therapy for a higher risk patient, it's a little bit more debatable what its role is.

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Stem Cell Transplant

Anne Quinn Young, MPH

Dr. Palumbo, you're currently conducting a clinical trial looking at the combination of melphalan/prednisone and lenalidomide versus stem cell transplant in newly diagnosed patients. Can you tell us a bit about the results of this trial?

Dr. Antonio Palumbo

Yes, this is, a very important trial; and it has been closed recently in Italy. And this trial is comparing conventional treatment versus autologous transplant in the era of new drugs. This patient has been treated with lenalidomide/dexamethasone as induction, and then randomized to receive MPR (melphalan/prednisone/lenalidomide) or tandem transplant. Results are very preliminary, and what we will present is slight superiority in terms of response rate for the autologous transplant group, but at present no difference in terms of progression-free survival.

We will probably have those data in a year from now to show and clearly define what the role of the conventional treatment is in comparison to autologous transplant for a younger patient.

Dr. Keith Stewart

The other, to me at least, interesting abstract is looking at the issue of weekly versus twice-weekly bortezomib, which we will present. And unlike Dr. Palumbo's experience with reducing the dose of bortezomib by giving it once weekly where neuropathy is less frequent, he chose to give essentially the same bortezomib dose but moved to a weekly schedule and showed that the efficacy is identical, the toxicity is very similar; but disappointingly, perhaps, neuropathy was the same. So what we have ended up with and will show is that you give bortezomib weekly; it's more convenient with basically the same result and about the same total dose.

Dr. Antonio Palumbo

Yes, but you increased the dose on a weekly basis.

Anne Quinn Young, MPH

Right.

Dr. Keith Stewart

Right.

Dr. Antonio Palumbo

So that was the difference. But certainly I totally agree with you that at least that you certainly showed that it's more convenient and basically the efficacy and the toxicity is quite similar. And probably you did not have the elderly patient population that I'm usually managing. So for the elderly, the question is probably a little bit different; the safety profile is probably a little bit more a concern.

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Dr. Keith Stewart

I think the message for the listeners is that it looks like from your work on our own that bortezomib can be given weekly.

Dr. Antonio Palumbo

Absolutely.

Dr. Keith Stewart

And that it's more convenient, and you don't lose a lot. In fact, you gain certainly in an older patient with a lower dose. You have a little bit less neuropathy. But we must emphasize, that's when it's used in combination with other drugs. So you seem to be able to drop back on the dose a bit or the schedule a bit and get to the same place when you have other drugs present.

Dr. Antonio Palumbo

Oh, certainly. We should move to a new treatment paradigm for bortezomib weekly dose and at that point for the younger you can increase from 1.3 mg/m² to 1.6 mg/m². For the elderly, you can keep 1.3 mg/m² or even 1.0 mg/m² if this is needed.

Dr. Keith Stewart

Exactly, although we must emphasize again these are Phase II trials and not randomized studies. But that would be our sense of things at this point.

Anne Quinn Young, MPH

And furthering this theme about measuring the risk versus the benefit, there are some abstracts related to allogeneic stem cell transplant, and there have been shifting attitudes about the role of allos and mini-allos. Could you comment on the abstracts being presented here at the meeting?

Dr. Antonio Palumbo

Well, for the mini-allo [transplantation] situation, there are, as you know, conflicting results. So it's at present very difficult to say which could be considered a standard of care and that our usual comment is allogeneic transplant is at present an experimental procedure. It should be done within a clinical trial, should not be considered outside clinical trials.

Within clinical trials, the new information is that we can start this including new drugs with the allogeneic transplant setting; and this could probably, to some extent, change the outcome of those patients.

Dr. Keith Stewart

I think Dr. Palumbo phrased it well. We feel that this is still something that should be done in the context of a controlled clinical trial. It is still a toxic procedure, and, therefore, should probably be reserved for patients in whom you don't, you for some reason know or expect that they are not going to do well on conventional therapies. For example, a very young patient with high-risk disease who has already experienced an early relapse probably needs to consider something investigational like that.

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Anne Quinn Young, MPH

So related to questions about different types of transplant and the timing, we're also seeing more data suggesting whether there an appropriate or optimal time to have high-dose therapy and a stem cell transplant? What are the data suggesting in terms of benefits, doing it right upfront versus saving it for more of a salvage setting? And then, also, are there situations where tandem transplantation is recommended?

Dr. Antonio Palumbo

Regarding early or late transplantation, my comment is that probably in terms of overall survival, it is not changing that much having an early or a late transplantation. In terms of progression-free survival, certainly it's changing very much because if you have an early transplantation, your remission duration is much longer. So there is a benefit in terms of quality of life having an early transplantation because even if the survival might be similar, you will have a prolonged remission duration and fewer relapse. And this is in terms of quality of life an advantage.

Dr. Keith Stewart

For me the question of is transplant good early or late, the goal of therapy is nowadays I believe to get patients into as close to a complete remission as you can and to keep them there; and transplant is a tool which you can use to achieve that goal. So to me it is best employed early on to try and get the patient into best possible remission rather than waiting. But it may not be necessary in all patients if they've already obtained the complete remission. But these are questions that need randomized clinical trials. They're just starting now, for example, in France with the Dana-Farber Cancer Institute.

Anne Quinn Young, MPH

And we discussed maintenance in the non-stem cell transplant eligible population. There are also studies presented here discussing the role of maintenance therapy following stem cell transplant. Could you discuss some of those results?

Dr. Antonio Palumbo

The French group will present this ASH randomized trial comparing a consolidation with lenalidomide versus a maintenance with lenalidomide. And certainly the expectation is that the advantage for consolidation and even maintenance should be there, but I believe at least at this ASH they will only present the advantage of that consolidation. And for the maintenance, again, probably a longer follow-up is needed.

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Dr. Keith Stewart

You know, it's fascinating. There are a whole series of trials looking at thalidomide maintenance, all of which were essentially paused in favor of taking thalidomide, and yet uptake has not been as high as you would expect. So you have to assume that that reflects physician concern about long-term toxicity because we have five randomized trials which all show an advantage, essentially.

Everybody thinks that lenalidomide might be a better choice for toxicity, but the randomized trial looking at that is not yet available. And, similarly with bortezomib, either in consolidation or maintenance, data is beginning to emerge now but is not complete.

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TRANSCRIPT

Treatment of Smoldering Patients

Anne Quinn Young, MPH

So along the lines of treating patients longer, there are results presented here from a Phase III trial looking at len/dex (lenalidomide/dexamethasone) versus placebo for smoldering patients. What did that trial tell us?

Dr. Antonio Palumbo

That's a very interesting trial because it is addressing the issue of early treatment and before you can see organ damage or symptomatic myeloma. I think, again, this trial will show positive results; but I do believe it's still early to make a conclusion because we need, again, the longer follow-up before saying that you could use lenalidomide in asymptomatic myeloma.

My impression is that using lenalidomide in asymptomatic myeloma, you prolong your remission duration of three to four years, fine. But if you only prolong the remission duration of one year, it's probably not a good idea to use early on those new effective drugs in patient without symptoms.

Dr. Keith Stewart

You know, I think a critical point is when the Mayo Clinic published on 300 patients with smoldering myeloma. One-quarter of those patients, 25% needed no treatment over 15 years. And we are experiencing such rapid advances in how we treat this disease. If I were a patient with smoldering myeloma, I would not be in a hurry to take drugs until it was clear that they were going to become necessary.

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Novel Therapies

Anne Quinn Young, MPH

So shifting gears to looking at treatments in the relapsed/refractory setting, here at this meeting there are second- and third-generation proteasome inhibitors and IMiDs (immunomodulatory drugs) such as carfilzomib and NPI-0052 as proteasome inhibitors and pomalidomide as an IMiD, can you tell us about the results presented at ASH for these compounds?

Dr. Keith Stewart

Carfilzomib is quite active. It appears when you use it early in the disease course, between first and third relapse, that the response rate is about 45% to 50% of patients on its own, which is somewhat similar to the results seen with bortezomib in a similar population.

However, when you wait till a later stage of the disease, which will be shown, response rate does drop, particularly in bortezomib-refractory patients, although there is still a small response rate even there.

The thing about carfilzomib that people are excited about is, number one, it does not appear to cause the neuropathy in the feet which patients find so troubling. That thus suggests you might be able to use it for longer or even in higher doses and obtain the same benefit we see with bortezomib. So it's certainly an exciting new entry into the myeloma therapeutic world, and more than 700 patients have been treated with this drug now.

The NPI-0052 is very early in its development. It's also a proteasome inhibitor, just like bortezomib and carfilzomib. Early evidence of response is emerging, but it's still quite young in its development; but hopefully will also be a helpful agent going forward.

The second class of drug which has been presented at this meeting, which is clearly active, is pomalidomide. This is very chemically similar to both thalidomide and lenalidomide, but again seems to be active not just on its own but also in some patients who have failed with other therapies. So it does seem to have some unique characteristics, and it's my belief that both of these drugs will end up being approved for use in myeloma. And this is, part of the excitement of this meeting is seeing how their development is progressing; and as more patients are treated, of course, other things start to emerge. And we'll be interested to see how they look. However, we were interested to see the updated results for both of these compounds.

Anne Quinn Young, MPH

And there are a number of studies looking at novel agents with truly different mechanisms of action from heat shock protein 90 inhibitors like tanespimycin, HDAC inhibitors like vorinostat, panobinostat, and then novel agents like elotuzumab and perifosine. What are you seeing in terms of results with some of these compounds in early trials?

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Dr. Keith Stewart

All of these compounds had very strong activity in the laboratory. In the clinic, their role is still to be established. The hope is that these drugs will target either some subsets of patients based on the genetic makeup of the tumor or will help overcome resistance to bortezomib or other drugs.

Right now it's unclear if those goals will be met for any of the compounds you just described, but large trials are underway to explore those possibilities. And I think time will tell whether they achieve the goals or not. I don't know if Dr. Palumbo has any thoughts on any of those.

Dr. Antonio Palumbo

I completely agree with you because, generally speaking, we now have second- and third-generation IMiD or proteasome inhibitors. And those are certainly active drugs. Then we have many other drugs with different mechanisms of action, less active than the previous one, but probably with a possibility of use in combination with other already established active drug because this might increase the potential activity of more complex combinations. So they could make a role, but I think it's too early now.

Dr. Keith Stewart

I think what's important for the listeners to realize is there are a large number of drugs in clinical testing for myeloma, and particularly in a patient who is relapsing, I think it's important for those patients to get into clinical trials where they'll get the most benefit from these new drugs if they exist and to help move the field forward.

Dr. Antonio Palumbo

Certainly we need to have more and more clinical trials because we need to reach those answers as quick as possible. Otherwise, we will take years before moving those drugs from the lab to the bed.

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Thromboprophylaxis and Bone Disease in Myeloma

Anne Quinn Young, MPH

Anticoagulant prophylaxis is recommended for newly diagnosed myeloma patients receiving IMiD-based regimen, but yet there's no consensus in terms of what is the best regimen. Dr. Palumbo, you presented analysis of a Phase III trial. Could you tell us a little bit about those results?

Dr. Antonio Palumbo

Yes, we are going to present an important trial that is addressing the question which is the best prophylaxis for a patient receiving thalidomide or lenalidomide. This is a very large trial, including almost 1000 patients. And those patients were randomized to receive aspirin or low fixed-dose warfarin or low molecular weight heparin.

The conclusion of this trial is that aspirin is substantially equivalent to low molecular weight heparin and is much more convenient. So my conclusion is aspirin should be considered a standard of care with one important observation. This is true for patient with standard risk of DVT (deep vein thrombosis). If you start to have patients with higher risk of DVT, such as previous history of DVT, center venous catheter, immobilization, and so on, for those patients low molecular weight heparin is mandatory.

Anne Quinn Young, MPH

There were also a few studies looking at some promising new bone strengthening agents like ACE-011 and DKK1 antibody, BHQ880, what impact might these agents have in treating myeloma patients?

Dr. Keith Stewart

Yes, I think this is a very interesting area. To emphasize to the audience, we still recommend use of bisphosphonates on a regular basis. But some of these newer agents entering the clinical arena for bone disease appear to have the ability to not just strengthen bone but to rebuild it. BHQ880 is in Phase I clinical testing now, and it's too early to know if it has the activity that would be predicted. But this should, if it works, have a profound effect on bone healing. Also, ACE-011 is another active agent which looks like it will help strengthen bones, again in early phase clinical testing.

One of the interesting consequences of ACE-011 therapy, if I understand correctly, is a major boost in the hemoglobin of patients who have received the drug. So that's a fascinating story just emerging and, obviously, too early to say much more about it than that.

We shouldn't forget, of course, also that denosumab will soon be on the marketplace one would hope; and so treatment of myeloma bone disease will continue to improve. But for now, it's based on bisphosphonate therapy and management of osteoporosis through exercise, no smoking, and calcium and vitamin D supplementation.

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Closing Remarks

Anne Quinn Young, MPH

Thank you for listening today. I would especially like to thank our speakers for providing such a helpful overview of the treatment options for multiple myeloma.

You can always check our website, www.multiplemyeloma.org or www.themmr.org, to find the latest information on multiple myeloma and its treatments.

Your feedback and comments are also very important to us as we plan for future webcasts and other types of educational programming. So, I encourage all of you to take a few minutes to complete the evaluation form at the end of this webcast. Your feedback helps us to plan both the format of our educational programs as well as future topics.

Thank you for listening, and have a wonderful day.

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References

Abdulkadyrov K, et al. ACE-011, a Soluble Activin Receptor Type IIA IgG-Fc Fusion Protein, Increases Hemoglobin (Hb) and Improves Bone Lesions in Multiple Myeloma Patients Receiving Myelosuppressive Chemotherapy: Preliminary Analysis. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 749.

Adamia S, et al. Biological and Therapeutic Potential of Mir-155, 585 and Let-7f in Myeloma in Vitro and In Vivo. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 833.

Badros A, et al. Tanespimycin + Bortezomib in Relapsed/Refractory Myeloma Patients: Results From the Time-2 Study. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 1871.

Cavo M, et al. Clinical Outcomes According to Genomic Abnormalities in 566 Newly Diagnosed Multiple Myeloma Patients Treated with Bortezomib-Based. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 1868.

Dimopoulos M, et al. A Polymerase Chain Reaction-Based Method to Detect Gene-Specific Adducts Induced by Anticancer Drugs. Clinical Application in Multiple Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 1879.

Dimopoulos M, et al. Treatment of Patients with Relapsed/Refractory Multiple Myeloma (MM) with Lenalidomide and Dexamethasone with or without Bortezomib: Prospective Evaluation of the Impact of Cytogenetic Abnormalities. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 958.

Fulciniti M, et al. Gadolinium Containing Contrast Agent Promotes Multiple Myeloma Cell Growth: Implication for Clinical Use of MRI in Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 1809.

Ghobrial I, et al. Phase II Trial of Weekly Bortezomib in Combination with CCI-779 (temsirolimus) in Relapsed or Relapsed/Refractory Multiple Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 748.

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Jakubowiak A, et al. Influence of Cytogenetics in Patients with Relapsed and Refractory Multiple Myeloma (MM) Treated with Carfilzomib (CFZ). 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 1827.

Lacy M, et al. Pomalidomide (CC4047) Plus Low Dose Dexamethasone (Pom/dex) Is Active and Well Tolerated in Lenalidomide Refractory Multiple Myeloma (MM). 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 429.

Ladetto M, et al. Correlation between Clinical Outcome and Disease Kinetics by Quantitative PCR in Myeloma Patients Following Post-Transplant Consolidation with Bortezomib, Thalidomide and Dexamethasone. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 960.

Lonial S, et al. A Phase I Clinical Trial Testing the Combination of Bortezomib and Tipifarnib in Relapsed/Refractory Multiple Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 3851.

Lonial S, et al. Phase 1/2 Study of Elotuzumab in Combination with Lenalidomide and Low Dose Dexamethasone in Relapsed or Refractory Multiple Myeloma: Interim Results. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 432.

Lonial S, et al. Preliminary Results of a Phase I Study of the Pan-PI3 Kinase Inhibitor SF1126 in Patients with Relapsed and Refractory Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 3879.

Moulopoulos/Terpos, et al. Diffuse MRI Marrow Pattern Correlates with Increased Angiogenesis, Advanced Disease Features and Poor Prognosis in Newly-Diagnosed Patients with Multiple Myeloma Treated with Novel Agents. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 829.

Niesvizky R, et al. Phase Ib Multicenter Dose Escalation Study of Carfilzomib Plus Lenalidomide and Low Dose Dexamethasone (CRd) in Relapsed and Refractory Multiple Myeloma (MM). 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 304.

Padmanabhan S, et al. A Phase I/II Study of BHQ880, a Novel Osteoblast Activating, Anti-DKK1 Human Monoclonal Antibody, in Relapsed and Refractory Multiple Myeloma (MM) Patients Treated with Zoledronic Acid (Zol) and Anti-Myeloma Therapy (MM Tx). 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 750.

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Palumbo A, et al. A Phase III Study of Enoxaparin vs Aspirin vs Low-Dose Warfarin as Thromboprophylaxis for Newly Diagnosed Myeloma Patients Treated with Thalidomide Based-Regimens. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 492.

Richardson P, et al. A Phase 1/2 Multi-Center, Randomized, Open Label Dose Escalation Study to Determine the Maximum Tolerated Dose, Safety, and Efficacy of Pomalidomide Alone or in Combination with Low-Dose Dexamethasone in Patients with Relapsed and Refractory Multiple Myeloma Who Have Received Prior Treatment That Includes Lenalidomide and Bortezomib. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 301.

Richardson P, et al. Perifosine in Combination with Bortezomib and Dexamethasone Extends Progression-Free Survival and Overall Survival in Relapsed/Refractory Multiple Myeloma Patients Previously Treated with Bortezomib: Updated Phase I/II Trial Results. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 1869.

Richardson P, et al. Phase 1 Clinical Trial of the Novel Structure Proteasome Inhibitor NPI-0052 in Patients with Relapsed and Relapsed or Refractory Multiple Myeloma (MM). 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 431.

Richardson P, et al. Tanespimycin + Bortezomib Demonstrates Safety, Activity, and Effective Target Inhibition in Relapsed/Refractory Myeloma Patients: Updated Results of a Phase 1/2 Study. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 2890.

Salhia B, et al. CpG Methylation Profiling in Multiple Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 604.

San-Miguel J, et al. A Phase IB, Multi-Center, Open-Label Dose-Escalation Study of Oral Panobinostat (LBH589) and I.V. Bortezomib in Patients with Relapsed Multiple Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 3852.

Shammas M, et al. Evolution of Genomic Changes and Their Significance in Myeloma. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 605.

Siegel D, et al. PX-171-004, An Ongoing Open-Label, Phase II Study of Single-Agent Carfilzomib (CFZ) in Patients with Relapsed or Refractory Myeloma (MM); Updated Results From the Bortezomib-Treated Cohort. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 303.

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Siegel D, et al. Combined Vorinostat, Lenalidomide and Dexamethasone Therapy in Patients with Relapsed or Refractory Multiple Myeloma: A Phase I Study. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 305.

Vij R, et al. Carfilzomib (CFZ), a Novel Proteasome Inhibitor for Relapsed or Refractory Multiple Myeloma, Is Associated with Minimal Peripheral Neuropathic Effects. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 430.

Voorhees P, et al. Vorinostat in Combination with Pegylated Liposomal Doxorubicin and Bortezomib for Patients with Relapsed or Refractory Multiple Myeloma: Results of a Phase I Study. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 306.

Wang L, et al. Updated Results of Bortezomib-Naïve Patients in PX-171-004, An Ongoing Open-Label, Phase II Study of Single-Agent Carfilzomib (CFZ) in Patients with Relapsed or Refractory Myeloma (MM). 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 302.

Willenbacher W, et al. Serum & Urine Free Light Chain Analysis Compared to Conventional Paraprotein Measurements: Usefulness for Clinical Decision Making in Real Life Haematology. 51st Annual Meeting of the American Society of Hematology. December 5 – 8, 2009. Abstract 2889.