Patient Power

Your Myeloma Questions Answered: Testing, MRD and More

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Andrew Schorr:
Hello, I am Andrew Schorr with Patient Power, and we are in Orlando, Florida for this live Myeloma Ask the Expert program. In a minute, you're going meet two noted experts in myeloma. But I want to tell you while we invite your questions to myeloma@patientpower.info, as we get answers, remember you want to discuss it with your own doctor, that's how you get the treatment that's right for you.

All right, I want to tell you where we are: we are in Orlando, Florida. We're across the street form a huge convention center, and what's going on here is the Annual Meeting of the American Society of Hematology, and that is blood cancer and blood specialists from around the world, about 25,000. And they are discussing, of course, in the mix multiple myeloma where fortunately, there's a lot to discuss. And so, we're going to give you a clue about that, and we're going to pose your questions, but remember, myelome@patientpower.info.

All right, you ready to go? Okay. Let me introduce our guests, so two wonderful guests: immediately to my right is Dr. Frits van Rhee, he is the Director of the Myeloma Program at the University of Arkansas Medical Sciences in Littlerock, did I get it right?

Dr. van Rhee:
You got it right, thank you.

Andrew Schorr:
Okay, thank you. And to his right, is Dr. Dan Vogl, who is a myeloma specialist at the University of Pennsylvania, Penn Medicine. Thank you both for being with us. I should mention that Dr. Vogl is also the specialist who treats our dear friend Cindy Chmielewski, many people know, Myeloma Teacher on the Internet. And fortunately, I have to say Cindy's doing well, so we're really delighted. Okay, gentlemen, are you ready for some questions from the patients?

Doctors:
Yes.

Andrew Schorr:
Dr. van Rhee, let me just start with you: one of the monoclonal antibodies that's used is called Darzalex, or daratumumab.

And so, somebody wanted to know, and I know it's important in myeloma, does it affect the lambda level which you measure I know in myeloma, is that something that you check, and does it?

Dr. van Rhee:
First of all, the antibody—there are two antibodies, a very important contribution to therapy, both in the relapse setting and also now there's approvals for up-front therapy, the antibody is effective in reducing the light chain levels.

Andrew Schorr:
It does?

Dr. van Rhee:
If a patient responds satisfactorily. The antibody does not interfere with the measurement of the light chain levels. Where some of the confusion arises is that there is a sensitive test called immunofixation, and it gives you a yes/no answer whether there's a myeloma protein there. And the darzalex drug can sometimes be detected in that test, but with reference to free lambda or free kappa, the administration of the antibody does not interfere with the testing.

Andrew Schorr:
Okay, and the bottom line is: does any medicine interfere with you getting a clear picture of what's going on? And it sounds like the answer with the right testing is, "No."

Dr. van Rhee:
Correct.

Andrew Schorr:
Okay. All right, let's go on. That question was from Stacey, by the way. Here's a question we got in from Joanne. Joanne, Dr. Vogl, says, "For patients that cannot take bisphosphonates for strengthening their bones, what bone-building therapies are coming, or what else is recommended to protect from bone loss?"

Dr. Vogl:
A few years ago, we saw the introduction of a new bone strengthening medicine called denosumab or Xgeva, which works by a completely different mechanism. So, some of the side effects that come with the bisphosphonates, you don't see with denosumab, and that can make it a really effective alternative for people who can't tolerate zoledronate (Zometa) or other bisphosphonates. And also, possibly even as the main bone-strengthening medicine that we would use for most patients, there's a very nice trial showing pretty similar results with both medications. And so, I think either one can be a good option.

Both of them do have the main side effect of potentially injuring the jaw bone, which we call osteonecrosis of the jaw, and so, you can't get away right now from those side effects. I'm not aware of any new options that are coming out that are going to advance our ability to control bone disease from myeloma. But the truth is those drugs are pretty effective, especially when combined with effective chemotherapy medicines to treat the myeloma itself.

Andrew Schorr:
Okay. I want to go back to—we were talking about lambda levels and all that, Bill wrote in this question, Dr. van Rhee, "I was told I'm in remission, but my light chain numbers are going up, and the lambda is low; what does that mean? And does "remission" mean I do not have the disease?"

Dr. van Rhee:
Remission means that there is no detectable disease, so there are different levels of remission. And when we talk about "complete remission," they mean that the bone marrow looks normal under the microscope, and there is no myeloma protein or free light chain levels detectable, and the latter not being above the limit of normal, because we all have some light chains circulating.

Then, the second category is optical astringently defined complete remission, where the minimal residual disease test is negative. So, minimal residual disease test seeks out very low numbers of myeloma cells, remaining in a normal-looking

bone marrow under the microscope, and there are two different tests for that presently being used; one is called flow cytometry, and one is a molecular test called next-generation sequencing.

Andrew Schorr:
Mm-hmm, okay. So, if somebody's told they're in remission, though, unfortunately, it doesn't mean they're cured.

Dr. van Rhee:
Well, we will only know with very long-term follow-up, where patients are being cured, and one of the unique things at our center is that we do have very long-term follow-up on our patients, on some trials in excess of 15 years. We do try to capture everybody lifelong. And there is a group of patients in the order of 20 percent who actually never relapsed, even with very prolonged follow-up. I think the exciting thing is that with the currently available novel drugs, that we can deepen the responses, and we can give novel drugs both during induction as consultation after transplant and as maintenance therapy. And hopefully, the cure—the magical cure will be within reach for more patients in the future.

Andrew Schorr:
I hope so. Some of the folks on the Internet know a very active advocate who works with Patient Power, Jack Aiello. And so, Jack is like 23 years out from treatment with Dr. Barlogie earlier at your institution so many years ago. And while he had some side effects from the treatment, some neuropathy, Jack is doing great, and we're like 23 maybe 24 years out, so that's great news.

Dr. van Rhee:
So, I think in that sense, it's a time of great excitement, and there are a lot of novel therapies being developed. And I think we need to learn how best to apply them, how to individualize therapy, but I think the outcomes of myeloma are already improving, and will be further improved in the future.

Andrew Schorr:
Okay, I'm going to ask a couple questions, because I've been learning about what's discussed here. So, there was a new class of medicine, a drug called selinexor (Xpovio), I think, that came out for some of the sickest, sickest people, and I know there are trials going on with that in other new kinds of combinations where people had very few options. So, we'll talk about smoldering myeloma in a minute, and what's on the early end. But on the much more advanced end, am I right that there's progress there too, Dr. Vogl?

Dr. Vogl:
I think there's tremendous progress. And you mentioned selinexor, which is the medication that's been most recently approved to treat multiple myeloma. And you're absolutely right, that it was approved for people who have really been through all of the effective treatments that we have and no longer have any good options. Although, there are ongoing trials using selinexor earlier in therapy at lower doses, and in combinations with other myeloma medications that may make it a much better alternative, actually, for a wider range of patients with myeloma.

One of the challenges with selinexor is it does have a fair amount of side effects, and I think we're still learning how to best manage those side effects, and how to adjust the dosing and dosing schedule to really get the best benefit for patients out of that particular drug. What's exciting about selinexor is it has a different mechanism of action from our other antimyeloma agents, and so, that makes it a true expansion of our myeloma armamentarium. And I think that in the coming years, we're going to see additional expansions to that. We're hearing exciting results about antibody drug conjugates, which are a way of targeting chemotherapy directly to myeloma cells.

Andrew Schorr:
Is this the BiTES?

Dr. Vogl:
So, BiTES are even another category where we heard some amazing preliminary results today about a bispecific T-cell engager, which is designed to attach to both a myeloma cell and an immune T cell at the same time, draw them together so that the -cell can attack the myeloma cell, so a way of harnessing the body's immune system to attack the myeloma. And of course, many people have also heard about chimeric antigen receptor, or CAR-T cells, which are another way of training the immune system to attack the myeloma. And we're going to hear other results of CAR T-cell trials that show some

pretty amazing response for a lot of patients. We're still working on making all of those treatments even better so that they truly live up to their potential, and learning how to manage the side effects of those treatments, but they are right there on the horizon so I think there's a lot of reasons to have hope.

Andrew Schorr:
We're going to come back to Dr. Vogl in a minute about CAR-T cell because his institution—the University of Pennsylvania—did some of the very beginning work in that, Carl June, and some others. So, we'll come back to that in a second. But I want to flip it from the more advanced myeloma to early, early, early. I have a friend, a dear friend where I live, she has smoldering myeloma. There's been discussion about: do some people with smoldering myeloma need treatment? And if so, when and how do you know? So, where are we now with the thinking about smoldering myeloma?

Dr. van Rhee:
Well, there have been a number of clinical trials designed to intervening of patients with more what we call high-risk smoldering myeloma who are at increased risk of early progression. There have been trials when lenalidomide (Revlimid) and dexamethasone (Decadron), Revlimid alone, different scheduling of daratumumab. And there's also a Spanish trial where they actually used a very aggressive approach, including a three-drug induction and transplant aiming to eradicate the disease.

So, I think that the whole field is moving towards identifying patients who are at increased risk of progression, and instituting early intervention for those. Obviously, the crux of the matter is to try and identify the correct patient so that we don't treat patients unnecessarily.

Andrew Schorr:
Do no harm.

Dr. van Rhee:
Yeah. And essentially, the smoldering multiple myeloma group consists of two patient groups: one has more or less early myeloma and they are going to progress; and the other group, is going to behave more like MGUS, which is the earlier precursor condition. And there are various ways of identifying the patients who are at increased risk of progression.

Andrew Schorr:
Okay. Well, that's important for people who are watching. I just want to go back to CAR T for a minute, and then we're going to continue with your questions to myeloma@patientpower.info. So, I said, your institution was really on the ground floor of CAR T, it's approved in some lymphoma areas, but not in myeloma chimeric antigen receptor T-cell therapy. We and people in the myeloma community, know people who have been treated this way, and some are doing well; and some not, and quite frankly, some people have passed on.

So, the question is, and you were talking about this in smoldering myeloma: do we know, Dr. Vogl, who might be a candidate? for people who have not done well or progressed through other therapies, now you say, "Was CAR T an option?" is there like a blood test you can do and say, "This is going to work for you," and "No, this is not right for you."

Dr. Vogl:
Well, so I think there are actually a couple of answers to that question. There are some people for whom doing CAR T-cell therapy is clearly not an option, primarily people who have been through a lot of prior therapies who don't have enough T-cells in their blood that we can effectively collect them, manufacture them outside the body to be able to give them back as a T-cell therapy. And so, we do know some of our patients just right off the bat, that isn't going to be a useful approach.

But the bigger question of who's going to benefit the most from CAR T-cell therapy, we're really only just beginning to figure out because we're still very early in our trials of CAR T-cell therapies, and there are a lot of different CAR T-cell therapies out there, there are least six or seven companies—and probably many more by now—developing new CAR-T cells, all of them are a little bit different from each other. And it's going to take a long time to figure out which ones are the most effective, and which patients are the most effective.

And probably one of the biggest directions for the field is starting to answer the question: will they actually work much better if we give them earlier in the course of the disease when people's immune system is healthier, when their T cells are

healthier, and therefore, maybe better able to take advantage of training those T-cells to kill the myeloma cells. And so, I think that's going to be the next wave of trials, is actually doing CAR T-cell therapy as the second—or maybe for especially high-risk patients as part of their first line of treatment to see if that can actually provide the cure that we keep hoping we'll get for myeloma.

Andrew Schorr:
Is this a similar discussion to what you had over many years about stem cell transplant, or double transplant? In other words, who is it right for, and when are they physically fit, is their immune system—you know, whatever, is it similar to that?

Dr. Vogl:
So, I think it has a lot of similarities, and CAR-T cells do come with some real potential risks, there are some serious immune-related side effects that people can get, and I would never want to underplay the potential risks of CAR-T cells. But at the same time, if you compare it to stem cell transplants, I've been impressed at how much better-tolerated in many ways the CAR T-cell therapy is, because it doesn't have that really high dose of chemotherapy, it doesn't depend on a very high dose of chemotherapy for its effectiveness.

And so, patients make it through CAR T-cells, some with some potentially serious side effects, others with more mild side effects; but overall, doing reasonably well. And the biggest question is: can we make it work even better so that the responses at least last as long as you get from a stem cell transplant, or maybe even lead to cures.

Andrew Schorr:
Okay.

Dr. van Rhee:
So, if I may answer that too, I think Dr. Vogl is absolutely correct. I think there are two obvious patient groups who are candidates for early CAR T-cell intervention: patients who relapse early after a stem cell transplant; and then, there are these high-risk patients. And I think in all myeloma centers, we struggle with these patients, because they more or less have a binary outcome: they either are going to do well, and their disease does not come back; or they have early relapses, and they're very difficult to manage. And nobody really has an answer for this with the current available treatment kit. So, CAR-T cells are very interesting in that regard.

Andrew Schorr:
Okay, so I want to ask some questions. So, here, let's get back to some of them here; so one second, I got to get to my list. Jim sent in a question, we'll get to some more basic stuff now, "Is there any data or potential solutions for those suffering with our vision getting worse when on "dex" or daratumumab?" Do you want to talk about that, about vision complications?

Dr. van Rhee:
Yeah, daratumumab usually does not cause any vision problems; dexamethasone can. First of all, dexamethasone can cause some fluid retention; secondly, prolonged exposure to dexamethasone can cause cataracts. Obviously, dexamethasone is a potent anti-myeloma drug, and part of many treatment regiments. And on the other hand, one doesn't want to compromise on the dexamethasone dose delivered; on the other hand, the drug does have side effects, so sometimes appropriate dose adjustments are necessary. And in the final analysis, sometimes patients require cataract extraction if they really get troublesome cataracts on dexamethasone.

Andrew Schorr:
But I'm 69, my eye doctor tells me I'm a candidate for cataracts— I'm not on "dex" or anything—but many of us as we get older it's—and I think the eye doctor does like six surgeries a day. So, it happens, but it's very common now. Would you switch someone off of "dex" based on vision problems?

Dr. van Rhee:
If they're purely related to either cataract development or fluid retention, the answer will lie on the biology of the disease, how aggressive is this disease? Does this patient really need their dexamethasone, or can we stop it, or only give a small dose? And where are we, are we in a maintenance phase, can we do away with the dexamethasone all together?

Andrew Schorr:
Okay. Here's a question, Dr. Vogl, we got from Susan, "Is there a standard of care regarding antivirals?" I'm a CLO—chronic lymphocytic leukemia patient, so I take acyclovir (Zovirax) to avoid shingles; and she says, "Acyclovir or valacyclovir (Valtrex) administration after a stem cell transplant, I'm 20 months post-transplant, and my multiple myeloma doctor wanted to discontinue the valacyclovir. But I've not received the zoster vaccine (Shingrix) vaccine in fear I could develop shingles, so I refused. What do you suggest?" So, nobody wants shingles.

Dr. Vogl:
So, I think there's one really easy answer to this question, which is that the new shingles vaccine—which has the brand name Shingrix—has been shown to be highly effective. It's not a live virus vaccine, so it's safe to use including in patients with myeloma. And there's a clinical trial that we participated in at the University of Pennsylvania that showed that it was effective at inducing anti-shingles immune responses even in people who were early after a stem cell transplant for myeloma, so whose immune systems were really severely affected by their treatment.

And so, I do think that getting this new shingles vaccine—which is a series of two shots given once—it's approved for anyone over the age of 50, not just people with myeloma. But I recommend it for all of my patients. The more difficult question that we really don't have a clear answer to is: how long do you need to stay on antiviral medications while you're either on myeloma treatment, or off myeloma treatment, and how does the new shingles vaccine play into that?

My own personal practice is to have patients on anti-shingles medications like acyclovir or valacyclovir while they're on any proteasome inhibitor, which would be like bortezomib (Velcade), carfilzomib (Kyprolis) or ixazomib (Ninlaro) or on monoclonal antibody like Darzalex or elotuzumab (Empliciti). And for at least a couple of weeks after the proteasome inhibitors, at least for a few months after the antibody therapies, and for at least six months after a stem cell transplant. And my own usual practice is that once patients are out past those thresholds, their risk of getting shingles just isn't that high anymore.

The downside to continuing the oral medications is relatively low, so if somebody really wants to continue on the medicine, I don't think there's a big reason that they have to stop it, but I'm just not sure that it's necessary anymore.

Andrew Schorr:
Okay. I'm sure you're asked 20 times a day about flu shots, what do you say about that?

Dr. Vogl:
I am also a big proponent of influenza vaccines, and also of pneumococcal vaccines, which are vaccines against the most common bacterial cause of pneumonia. Probably you don't want to do those in the very early period after a stem cell transplant, because they're not really effective. But once you get at least a few months out from a stem cell transplant, or in the course of your regular treatment, none of those vaccines have the ability to cause an infection.

And even though they won't work as well for people with myeloma, because their immune systems won't respond as well as healthy people's immune systems, any little additional protection that we can get from potentially deadly infections is really important.

Andrew Schorr:
So, there's sort of a stronger dose of the flu shot, so should myeloma patients who are often older get that?

Dr. Vogl:
So, we don't really know whether that higher dose influenza vaccine truly provides more protection. And in general, it's paid for by insurance companies primarily for people over the age of 65, and I usually tell my patients that if they have it available to them, sure, go head and choose the stronger or high dose influenza vaccine. But if it's just not available, to not worry about it because they still probably get good protection from the standard dose.

Andrew Schorr:
Okay, here's a question, Dr. van Rhee, from Merlin: "If a patient can't tolerate Revlimid, is there another low side effect drug available to take in combination with darzalex that could possibly bring kappa free light chains, I guess, down, IgG and M-spike levels down, bring all that down?" Something other than Revlimid if they can't tolerate it.

Dr. van Rhee:
So, there are two clear options there, there is a drug in the same class as lenalidomide (Revlimid) called pomalidomide (Pomalyst), and the side effect profile is a little different. Revlimid sometimes can cause some diarrhea, chemo brain, it can particularly drop the neutrophil count. And pomalidomide is an alternative, it may have some much stronger action, so the suspicion is that it actually may partner better with the daratumumab.

The other option is to do a class switch, to use a different drug. And for instance, Velcade with daratumumab has been proven in clinical trial to be a very effective combination. And obviously, there are also clinical studies with other partners going on.

Andrew Schorr:
Okay. Here's a question we got from Gretchen for you, Dr. Vogl, "What are your thoughts about a monthly daratumumab injection as an alternative to Revlimid for maintenance in the near future? Are there any studies on its effectiveness and risk now?"

Dr. Vogl:
So, thinking about using a medicine like daratumumab, which can be given as infrequently as once-a-month and has relatively little in the way of side effects completely makes sense to use as a maintenance therapy over long-term use because of how well-tolerated it is. The studies looking at the addition of daratumumab to Revlimid as maintenance treatment are ongoing right now, so we don't have any clear results, and we don't know whether that's the right treatment to do for our patients, but I think we'll have the answer in the future.

Andrew Schorr:
Okay. Dr. van Rhee, we talked about cure for a while, and this is a question we got form George, he wants to know now how do you tell people whether you think they're cured? Is it just this long-term view, or is there some test? We talked about minimal residual disease looking for like one cancer cell in a million or something. How do we treat that? I know we—just time, and feeling good, and leading life, and having MRD negative, that effectively is a cure.

Dr. van Rhee:
Well, first of all, the proof of the pudding is in eating it. In the final analysis, you can only call somebody cured if they have very long-term disease-free survival, and for most malignancies, that's actually 10 years, for most other cancers. In terms of MRD, a negative minimal yield disease test confers a better prognosis at any stage of the treatment, after induction, after transplant, after consolidation, and during maintenance.

However, some caution is needed in interpreting the MRD test. First of all, it's only a snapshot. A negative MRD test which is only present for three months doesn't mean very much, so sustained MRD negativity is important. Ideally, one would like to combine that with a PET scan. And the flipside is the MRD positivity, not everybody who has a positive MRD test has a poor prognosis. So, in other words, the biology of the cells that remain are important, and particularly a subgroup of the patients with the (11;14) translocation, they don't always go into remission, they can have positive MRD tests, and they have excellent outcome.

Then, you need to take also into consideration when the test is being done. For instance, if you have very aggressive disease, and you get MRD-positive after an autotransplant, you're going to have a poor outcome unless you modify your treatment plan. In patients who are receiving maintenance therapy, you need to allow for a certain time for the MRD test to become positive. So, we found that lower standard risk patients, the MRD test should be negative at two years. So, there is timing, there is the biology of the MRD-positive cells, and what kind of disease are you dealing with.

But the answer is there is a lot of discussion whether MRD can be a surrogate and point for provision-free survival, and it will likely be accepted by the FDA. But I think we also need some long-term studies for the early MRD positivity, or sustained MRD positivity, truly is going to correlate with what we call cure.

Andrew Schorr:
All right, so let's talk—while we just have a couple more minutes, Dr. Vogl, the news here. So, he's talking about this testing, minimal residual disease testing, there's a lot of discussion about that here at this American Society of Hematology

meeting. You guys trying to figure out what test you do when, and what does it mean. And if I were a myeloma patient, I'm a leukemia patient, but my friend's a myeloma patient, we see this as sort of report card on how we're doing, but it sounds like it's not so simple, we may be positive, we may be negative.

So, what do you think are some of the headlines? You mentioned about new drugs, and now we have understanding testing. So, what's the buzz about myeloma here at this world meeting?

Dr. Vogl:
Well, you know, my patients know that I tend not to emphasize needing to get to a deep, perfect response as part of my treatment plan, and that I actually don't usually do a lot of testing for minimal residual disease. And there's going to be a lot of variability among myeloma experts as to how important we think it is for an individual patient to test how deep their response is, and to know whether they truly have minimal residual disease detectable by a particular test or not. And for me, that's in part because I do think that right now we have a hard time figuring out what we're going to do with that information.

So, there are clinical trials being planned where with MRD testing, we're going to take patients who are MRD-negative and use that as our signal to try stopping their maintenance therapy. And then, there are other clinical trials where we're going to take patients who are MRD-positive and change their treatment instead of just continuing their maintenance therapy, and try to get them to be MRD negative, and we don't know which way we're really going to use those MRD results.

And so, for my own patients because I'm not sure how I'm going to use those results, I don't necessarily go after trying to figure it out, and I think a lot of patients can really make themselves worry a lot about their MRD testing without us really knowing how much they should be worried about it. And I tend to emphasize much more the myeloma at least being in a good response, not progressing, and people feeling well, and not having too much side effects from therapy is a measure of the success of any particular therapy for a particular patient.

I think the big headlines have to do with the new agents that are coming out, the increasing information that we're getting about using more agents and more effective agents earlier in the therapy of myeloma, and really how much those two things together are driving our better outcomes for patients because I do think that patients are doing much better now than they used to be doing.

Dr. van Rhee:
We don't know yet whether changing therapy purely based on MRD will improve outcome. I think it's very important to explain to patients also that myeloma patients gradually go into remission, you don't necessarily need to be in remission after one cycle of treatment. And similarly, the MRD test can become gradually negative, but they can stop during maintenance treatment early—maintenance treatment early on the sustained MRD test is indeed a question for a clinical trial to be answered.

In my own clinical practice, I do pay attention to the patient with high risk disease who are still MRD-positive after transplant, who in our center, frankly, have a very high risk of relapse. And I do think they're—and those patients, whether I need to make a change in treatment or not.

Andrew Schorr:
I always ask doctors this: given what you know, just the totality because those are the folks living with it, Dr. Vogl, are you hopeful? It sounds like you have more armamentaria than you've ever had before from smoldering all the way through higher risk, CAR T working on that, lots of options, are you hopeful for people and their families who are touched by myeloma today?

Dr. Vogl:
I think that we saw a giant revolution in myeloma treatment over the past 15 years with the introduction of these new classes of agents, medicines like Revlimid, and Velcade, and daratumumab. And I think we're about to see another revolution with the introduction of the immune-targeted therapies, and additional classes of medication that we never had before. And I think it's going to continue making treatment and quality of life better for our patients.

Andrew Schorr:
So, talk to your doctor, keep your eye on clinical trials—you mentioned that—does something apply to you to help answer these questions, to help everybody do better? How about you, are you hopeful?

Dr. van Rhee:
I think I'm not only hopeful but very excited because there are many new drugs being developed, and there are also some drugs which will probably be targeted to specific subgroups. One drug that we haven't mentioned is venetoclax, which seemed to be particularly effective in the patients with the t(11; 14) translocation. So, hopefully, in the future, there will not only be more available drugs, but we also learn to understand better how to utilize them, and how to individualize therapy.

Andrew Schorr:
Okay, I'm so excited. And Dr. van Rhee here, I get to go—or one of us—the whole team will go back to Little Rock to be with him this spring in 2020, we'll have one of our town hall meetings there from the University of Arkansas Medical Sciences, and it's broadcast like we're doing now, so everybody can participate. And we're looking for another event we hope in the fall, maybe in Ohio if we can pull it off during Blood Cancer Awareness Month, and programs throughout the year. So, send your questions to Myeloma@PatientPower.info. I want to thank Dr. Fritz van Rhee from Arkansas, thank you for being with us.

Dr. van Rhee:
You're welcome.

Andrew Schorr:
We'll see you in the spring. Dr. Vogl, thank you so much for being with us, please take good care of Cindy Chmielewski, Myeloma Teacher, we all love her; I gave her a big hug earlier today. And live, we're so happy to be with you from Orlando. I'm Andrew Schorr form Patient Power. Remember: knowledge can be the best medicine of all.