MPN Therapy: Advice and Guidance for Making Treatment Decisions

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Andrew Schorr:
Hello, and welcome to Patient Power, I'm Andrew Schorr, and welcome to our Partners program, for those of us living with a myeloproliferative neoplasm, and MPN. I'm in Carlsbad, California, near San Diego, but we have some wonderful guests with us: Two from Houston, and one who's normally in the New York area, today he's on the road for his business in San Francisco, and I want you to meet them.

Then we're going to have a discussion, really among patients, with a wonderful, world-class MPN expert as our advisor, as we talk about, really advice and guidance for treatment decisions, which you may need now, or you may need another one later, or later after that. So, joining us are some regulars on Patient Power. First, let's go to Houston. Samantha Trahan, who's an attorney in Houston, and Samantha, welcome back to Patient Power.

Samantha Trahan:
Thanks so much, Andrew.

Andrew Schorr:
So Samantha, just to review for a second, you were diagnosed at a really early age with ET, and now we're like, 20 years later, and what seems to have gone on, going through polycythemia vera, is now myelofibrosis, right?

Samantha Trahan:
That's right. I've now hit the trifecta. I started out with ET and moved to PV, and now, myelofibrosis.

Andrew Schorr:
Okay, all right. Well we're gonna talk a lot more about that, because you're at quite a crossroads. Okay, over to San Francisco, where Nick Napolitano, living with PV, is away on business. Nick, so you've been on baby aspirin, and that's been working pretty well, and you've worked hard with your family and yourself to kinda get your head straight, and I know that's been an issue, having a young family, and being pretty young yourself. And now you're questioning, are some symptoms changing, and maybe will there be other treatment needed for you, right?

Nick Napolitano:
Yeah, and you know, it's changed pretty quickly here over the last couple of months, and so we're going to have discussions about regression and different treatments and things like that, and so it's a very relevant topic for me, as I'm starting to experience some changes in my diagnosis.

Andrew Schorr:
Okay, well we're gonna talk. Now we have someone who's seen literally thousands of patients, and advises doctors around the world, and that's Dr. Srdan Verstovsek, who is the chief of the MPN section of MD Anderson, and noted researcher. He's been my doctor along the way, he's Samantha's doctor, part of her team. Dr. Verstovsek, welcome back to Patient Power.

Dr. Verstovsek:
Pleasure, thank you very much for having me on this valuable program. Friendly faces, glad that things are evolving for us all, and we're gonna have a nice discussion about what to recognize in a patient, how to deal with and what to expect. Thank you for the opportunity.

Andrew Schorr:
Oh, sure. Okay, so first of all, Samantha, just to go back to you, so you and Nick, Me, too, and our viewers, probably, we do a lot of research, and at some point, though, you have to land on something that you believe will help extend your life, and so you can live well. So, how have you been, first of all, how did the myelofibrosis show up? So you went from PV, what changed?

Samantha Trahan:
So, I still feel great. So, it's not that I had a sudden change in symptoms, but when I see Dr. Verstovsek every three to six months, and I have all of my—I have years' worth of data. And what we saw was a slight trend downwards, in hemoglobin, hematocrit, number of red blood cells. And it was enough of a very slow but, once you put it all together, very obvious trend that Dr. Verstovsek suggested it was time to do another bone marrow biopsy and look to see if anything had changed. We did that in December, and then had the change-over to diagnosis when I met him in January.

Andrew Schorr:
Okay, now, I understand that a transplant is on the table. Why that?

Samantha Trahan:
Well, it's interesting, even though I feel great, I am a well-informed patient, and while the bone marrow biopsy in itself was not too terrible, they also did a full genetic workup, and whereas I used to just be JAK2 positive, like most other, or almost all PV patients. The mutation panel actually brought back this year, I think, five different mutations. And some of those were on the very ugly side of the spectrum.

You know, so many mutations are not so bad, and some of them really speak to an advanced, or a more aggressive disease state. And so, I have two of those, and after doing a bunch of research, and talking with the stem cell team, they think that now is the time to treat that aggressively, because with these mutation patterns, it's only really just a matter of time before I would progress to something more aggressive like AML.

Andrew Schorr:
Wow, and you have children?

Samantha Trahan:
I do. I have one. He's 17-and-a-half. He's a senior this year, about to graduate high school.

Andrew Schorr:
Okay, and so is there a current search going on for a donor?

Samantha Trahan:
There is. Originally, they could not find a perfect, unrelated match, so someone out there on the registry that was perfect 10 for 10, and so we had my son typed, and he is a great haplo match, so we were looking down that avenue. And then just last week, they tell me that they found a 10 for 10 unrelated match, and so I went from having really, no options, surprisingly, because everyone thought that finding a match would be pretty easy, but went from having no options to now having two really good, viable options.

Andrew Schorr:
Are you on pins and needles right now?

Samantha Trahan:
The thought makes me want to throw up every time I think about it, but you know, what else do you know? You know, you've got to deal with what you got.

Andrew Schorr:
Let's skip over to your doctor, Dr. Verstovsek. So, Dr. Verstovsek, just a little bit about this sort of genomic testing now, so not all myelofibrosis is alike, is it? So what you might recommend to me, depending on what you saw in my biopsy, might be different for her. Tell us about the subsets now, in a decision to maybe use the big gun, a transplant.

Dr. Verstovsek:
Yeah, I'm sorry that the evolution of the disease has happened and that we are talking about such an intervention as aggressive as it is now a bone marrow transplant for Samantha. But in her short summary, Samantha has touched upon quite a few important aspects of disease evolution. And just briefly, just first to say, that the change, and this was quite well elaborated at the beginning by someone, that the change from more benign conditions, and in her case, it was polycythemia vera changing to myelofibrosis, takes time. Nothing happens right over night.

So you can see, that's what we always talk to the patients about. We cannot predict who is gonna change, and the risk of change to myelofibrosis is a small one, but it takes time. So what happens in her case is that she described, anemia developed. Then you look at LDH. LDH is the chemistry test that comes from the dead cells, the chemical. It goes up, and then you may see some of the molecules in the white blood cell types, and then you wonder what's happening because the production of red blood cells is abnormal. The cells are dying much faster. LDH goes up, and then you see baby cells from the bone morrow and blood, and then you say it must be that fibrosis is developing.

And then you do the bone marrow biopsy to document that change. And with the presence of abundance of fibers, plus these clinical findings, then you say, yes you are transforming, or you have already transformed. It's not one test. It's not only bone marrow biopsy that would show the fibers. It's a combination of bone marrow findings, physical exam, chemistry test, and the blood test, all together needs to be taken into account to talk about progression. Then, once you talk about myelofibrosis, then you say, yes this is, you have to know if this is a more aggressive condition.

It tends to change, and it changed already. The cells tend to change, and you try to explain why the change happened. And we can, and that is becoming standard practice in academic centers throughout the United States. Look beyond just the—in terms of genetics, look beyond the JAK2 mutation, or one of these, what you call driver mutations, that they usually will include the JAK2 mutation, calreticulin mutation, or MPL mutation. These are three mutations that almost everybody has one of the three. But we look for others, and to see whether this is the explanation why the disease has changed.

We actually note, everybody has many other mutations, but in Samantha's case, there were many others, and so that is plausible explanation why the disease became more aggressive. There might be other reasons in the bone marrow of the patients why things changed. We are focused on genetics because we can do the genetic testing. This can be done on blood, not necessarily on the bone marrow biopsy. We also look at the chromosomes, the ketogenes. That can be done also on blood, but it's much better done on the bone marrow, because you do need a lot of baby cells. Chromosomes can be broken in a patient, and that can explain why things change.

So that is a prognostic significance of some of the abnormalities in genes, and some of the abnormalities in chromosomes and ketogenes, and this is what Samantha was talking about. They would explain, perhaps, why things change, but they also provide prognostic significance for the outcome of the patients with myelofibrosis at this time. And so that has to be accounted for when we talk about what are we going to do about myelofibrosis. We can do the pills to control the spleen, or the symptoms or anemia, which are the three main problems with patients in myelofibrosis.

There are others, but these are the three main: Anemia, progressive and symptomatic splenomegaly, in general body—failure of the quality of life, like myelofibrosis symptoms. So, symptoms, spleen, and anemia. Or, you wanna say, "I don't wanna deal with the disease. I wanna change my scope of therapy to eliminate disease, and that's the

only way is obviously the transplant." And then, the decision needs to be made together, between the patient and the physician, when is the best timing, what are the expectations, and why would you go into that right now.

And this is where we talk about Samantha's situation. In her particular case, these genetic abnormalities have a powerful, unfortunate possible influence on the evolution of myelofibrosis is much faster rate. You see, usually for the transplant, we utilize characteristics of the patients. That would be if you are very anemic, you would have a very high red cell count, you have progressive inflammation in the spleen, quality of life, transfusion dependence. These are the prognostic factors to assess the aggressiveness of the disease.

And you would say if your disease has a risk of shortening your life expectancy to less than five years, based on our prognostic factors, then you should go for the transplant. We now account for changes in genetics, on top of the clinical evaluation, and the chromosomes also. So, this complex way of looking at individuals by putting all this together: biology, and the clinical perspective, and then you say, "When is the time?" And I think Samantha made up her mind already that now is the time, although she's not suffering a lot, and that's good, from the myelofibrosis, because the biological part is so unfavorable, now I think it's reasonable to consider transplant.

Andrew Schorr:
Wow, so Samantha, and Nick, we're gonna get to you in a second, but this is a big decision point she's at. So, there have been pills, like I've been on for years, ruxolitinib (Jakafi), and maybe there are others in trials for sure, you're kinda skipping over all that. Is that because you see, from this genomics, sort of a freight train coming, and you just wanna hit it head on?

Samantha Trahan:
Well, it's tough to make that call. I mean, I'm trading, right now, what is a great quality of life, for a rough year, and that's if everything goes perfectly, right? There's nothing easy about the transplant process. But most of the drugs that are out there right now are focused on quality of life. They help with the spleen, they help with fatigue, they help with your overall body state, and they have, as a consequence of that, they also have some life-extending qualities to them, as I understand it.

But there's nothing out there, and nothing that is so close on the horizon to wait for, that I can take as a pill, that will cure me or myelofibrosis, or that will stop the genetic mutation in its track so that I won't develop AML. And so if, I've had this, been in this family of diseases for a very long time, so I've seen the transition from no medication to finding the JAK2 mutation, to the development of ruxolitinib, to the drug they're on now, and I've looked at the clinical trials to see what else I might be taking, and I've looked at PubMed to see what other doctors are researching, and I don't see something that is going to be available fast enough to stop what is coming, and that, for me, is progression.

I only happen to know that because of all these mutations that they found in my blood recently. But you've gotta factor that in, and having factored that in, I would rather undergo the transplant now, when I am at my absolute healthiest.

I'm young, I don't need transfusions, I'm not transfusion dependent, I don't have any other co-morbidities. Right? I'm young enough. I'm only 43, so I'm not diabetic, I don't have high blood pressure. I don't have anything else. I've had my heart checked out, my lungs checked out, and I'm absolutely perfectly healthy. That's the time when your body is the strongest, that you're going to do a transplant, and you know you're going to have to do it sooner or later, I'm choosing to do it sooner.

Dr. Verstovsek:
If I may, there are so many good points here that you summarized, and just to touch upon one by one, the number one is that there is no medication, as you pointed out properly, that would prevent progression of myeloid leukemia. JAK inhibitors or any other therapies are here to control the disease to the best of our ability, for whatever they do,

in terms of the spleen symptoms or anemia, but none of them has been shown to prevent progression of myeloid leukemia. So that risk stays with the patient, even though they might feel better and have a smaller spleen.

The second point is, the mutation number is so high, and some of them are known to be of prognostical importance, in other ways, once the baby cells acquire that mode, that they are changing as they multiply, and they already went from one to five, their likelihood is that there will be 10 or 15, that the trend will continue. So it is reasonable to interrupt it with elimination of the disease, and replacing it with healthy bone marrow now, when, point number three, you are in excellent shape. You're not suffering from the disease. You can sustain the transplant and the change, so going through the transplant for you in a safe way are much better.

Andrew Schorr:
Woah.

Nick Napolitano:
Andrew, can I ask a question?

Andrew Schorr:
Please, go ahead. This is a discussion.

Nick Napolitano:
So, we spend our lives trying to be proactive, personal, professional, and with this particular disease, there's so much that's unknown, and me personally, I've inquired with several different doctors about bone marrow biopsies, and how often we should do that, and to me, if you're able to see progression in the bone marrow biopsy, why wouldn't we do one more often? Why wouldn't we try and be proactive and take a look at that bone marrow more often, to stay ahead of the progression and be as prepared as possible, right?

Samantha talked about that before we came on, about trying to be prepared, and I have gotten different viewpoints on how often we should do a bone marrow biopsy. I've received advice that, "I'm not going to treat you any differently if I see progression," or, "I'm gonna treat you based on your symptoms." But to me, that doesn't compute when we're trying to be as proactive as possible, and if you can stay ahead of it, possibly, in the bone marrow biopsy, why wouldn't we do one more often?

Dr. Verstovsek:
Okay, so it's okay to comment on that? Okay. That is an outstanding question, and I cannot tell you how many times I hear about the proactive stance, not perhaps bone marrow biopsies all the time, but proactive. And the sad situation is that the answer that you provided in your comment, is the one that is proper answer. Let's say that we do bone marrow biopsies in every PV patient every year, and we will find some patients that have more fibrosis than in the past. In fact, 20 percent of PV patients at the time of diagnosis already have some fibrosis. And we know that they are the hardest progression to post in myelofibrosis.

But, the bone marrow biopsy sample is a little bit different form time to time, either the hemopathology's a little bit different, and you will have to account for these differences and stay put until the next year and make sure that there is real change. And the question is, if you say yes, myelofibrosis is a little bit higher, but otherwise, everything else is the same. I still need phlebotomies, or still have high platelets and whatnot, related to PV. What am I going to be doing differently? And the sad situation is, nothing, really. We don't have a tool that will be applicable in the patient with PV or ET that has more fibers in the bone marrow than at the beginning. I don't have a myelofibrosis medication.

I'm not really able to provide the interference that people usually ask about, as opposed to medication to prevent progression, because it hasn't been proven really to do that. It's more or less an individual experience within the MPN community that that is a possibility but never documented, so the society, or if you wanna even say insurance

companies, or the doctors are not willing to treat people with the medication that has some toxicity and works only for five years usually in patients, because the tolerance is poor long term. And that is questionable long-term benefit in the prevention of any change, or even reversal of fibrosis. So really, now, and if you do this testing, you would say, "What am I gonna do with these results?" Nothing actionable, and that's why we don't really do that. In fact, I would give you the alternative test that I would like to do. Why do the bone marrow biopsies? Why not do the bone marrow testing every six months, on blood? You don't need to do the bone marrow biopsies to look for fibrosis. You can look at the development of new mutations in a patient's blood.

That, like in Samantha's case, would be catching those mutations earlier on, without any invasive procedure. But then, the question will be again, what do I do with these mutations? Now, you have three and you had one, but you are about the same as otherwise, you were, you did not change to myelofibrosis, because you had three mutations versus one, or you didn't change, if you do the bone marrow biopsies, to myelofibrosis, just because there are more fibers. I highlighted that fact. You have to have other clinical factors that you call it a transformation.

And only when you transform, then you actually do this testing at this time and age, because that is when you can justify the testing, You cannot justify the testing every year for bone marrow even, and the molecule testing. Who's gonna pay for it, because why are you doing it if there's – what are you gonna do with this result? And my answer is, unfortunately, nothing, really. I can't do anything about it. So we do it only when it's clinically reasonable to do it.

Andrew Schorr:
Wow, Nick, you got quite the answer...

Nick Napolitano:
...that's why I asked it. There you go.

Andrew Schorr:
And this is what—Dr. Verstovsek goes around the world. He talks to physicians who see MPN patients. They have debates about this, but also he, from his experience. Nick, let's talk about your situation a little bit. So, okay. So you're taking all this in, because here's somebody decades down the road now, Samantha, in Dr. Verstovsek's point of view on it, and you're seeing some change in yourself. So, how will you have a discussion with Dr. Heaney, your doctor at Columbia, about whether something else is needed? How you gonna approach this?

Nick Napolitano:
Well, we've talked about it. I saw him last month and we talked about it a little bit, and Dr. and Samantha have talked about it, where there's several different factors going on here, you know, I'm slightly anemic, I have a slightly enlarged spleen. My symptoms are more active, so we're starting to discuss alternative treatments. I think he thinks I'm a little bit more anemic than he would like, and so we're starting to talk about other options, and just, again, be prepared for that particular point where it does take a turn, and we have to look at some drug treatments.

Andrew Schorr:
I'll just say, from my own case, so my doctor's on the west coast, Dr. Jameson, and so thank goodness, for me, my condition has been stable for quite a while. We've messed around with the doses of Jakafi or ruxolitinib, depending on what was going on. And I have another condition, too: chronic lymphocitic leukemia. So it's sort of a balancing act. But let's say I have this visit and we say, well, things are stable, we always have a discussion about, "What if something changes? What are we watching? What are the trends we look at?"

And Samantha, you've seen this over decades. And how many pokes have you had in that time? Like, a zillion. I told the phlebotomist the other day, I think I've had a thousand pokes in all these years. So, at any rate, it's always part of the discussion, and I would advise people, in your visit, even if things are sable, say, "Not to worry, but if things

change, where are we now with options, either with approved therapies, and transplant, of course, or investigational ones?"

And so you imagine, at MD Anderson, where Samantha is, and Dr. Verstovsek, where Samantha goes, or Columbia, in New York where Nick goes, these are academic centers, and they can do a lot and they're researching more and more. So it's an ongoing, Serj, it's kind of an ongoing discussion, right? I mean you know patients over many years, and it's – there may be decision points, but there may be commentary that leads to those decision points may have happened over many months or years, right?

Dr. Verstovsek:
Yes, that's right. You see, we are evolving in the understanding of the biology of the disease, about the management of the patients. New medications are being developed, and the utility of the testing, which we highlighted so far. And one really needs to individualize, and this is used all the time, really, you have to individualize your approach with understanding of the clinical, biological, and the timeframe of the patient's condition over time, and be ready to face a change if necessary, or maintain the situation under good control as long as possible, with what you have at that point in time.

Now, we may talk a little bit more about new developments in Europe, where we have recent approval of what I call super-long-acting interference, for patients with Polycythemia Vera, which we will be studying here in the United States, for patients with PV and ET, which is welcome news. So we may have, in the near future, new therapies that we will be able to provide a larger group of patients with earlier-stage MPN, ET and PV, to perhaps then, study the issue of progression, halting the fibrosis, or decreasing thromboembolic risk, all of these together with a safe medication that is infrequently given and can be given for decades.

This is where we are going. We have to be realistic. The cure with the medication is hard to get. It's a formidable goal, but realistically, in my lifetime, I think we can get it. I'm not that old yet, but I have grey hair, that's okay. But hopefully we can do better in controlling the disease and making people live much longer with good quality of life.

Nick Napolitano:
Doctor, we're talking about progression. We're talking about trying to gain information, what you can gain. Do you see value in trying to pull past medical records to determine exactly when you were diagnosed? So for me, I'm diagnosed a little over two years. I want back and I pulled medical records, and my numbers were high as far back as about eight years ago, and I even think back further than that, in high school, just having symptoms.

Knowing what I know now, back in high school, I certainly had symptoms. And so, just in talking about being prepared, being prepared with your doctor, do you see value in going back and trying to determine exactly how far along you are with the disease, or is it a point-in-time snapshot where, here's where you are currently, and past information is not as valuable?

Dr. Verstovsek:
That is a good question. The information, in general, that you ask about, is valuable. The most important part is, however, the current situation, whether you have any prognostic signs that there will be a change. Also the question of will controlling the disease signs and symptoms on its own, without talking about progression. Easier polycythemia vera control. Well, is your risk of blood clot decreased with what you are receiving as management for polycythemia vera?

Remember, only a minority of the people will change to myelofibrosis or active myeloleukemia. That is really unfortunate for patients like Samantha that this happened, but the reason for, what is with PV, in general terms, a control of the PV, and the risk of thrombosis. Because maybe, the main risk of dying from PV is the thromboembolic event, the blood clot, not the transformation to myelofibrosis or AML. So that would be the first one. Your ability to

say how long you have a disease is information that is valuable in terms of saying, and we have to be realistic, the longer you live with the disease, the higher the chance of a change is.

But if you say I was only diagnosed three years ago and that everything before that was normal, or you say I was diagnosed three years ago, but I had the disease, appears to be 8 to 10 years.

That is information that is valuable, because you may have the disease for much longer, and the chance for the risk of change, it does go up over time. We know that, right? If you live with PV for 20 years, the risk to change to myelofibrosis or AML is higher than if you live with the disease for 10 years. It goes up over time, like everything in life. But we don't need to pinpoint exactly the day, or the time or the month. Approximately is good enough.

Nick Napolitano:
Thank you.

Andrew Schorr:
Well, so, I want to—we could go on and on. I think I wanna really just get some advice from the three of you, how our viewers can most productively have a dialogue with their doctor, as they talk about treatment decisions. So Samantha, I want to start with you. What advice would you give people? Because you've been in many of these conversations, and you've talked to lots of doctors. You're at a key decision point now, but advising others, whose situation may be different. How should they approach it, do you think?

Samantha Trahan:
Well, I'm a researcher, so I like to be prepared, I am a practicing lawyer, and a lot of what I do every single day is read and write. And so the first thing I do is, when I'm looking at my own disease state, is start reading. Now, I came back from my doctor's visit with this mutational analysis, and I immediately started looking into it. Right? You can start with the internet, then I look at articles on PubMed, then I contact the authors so I can get full copies of those papers, and I read those whole papers.

And then I make a list, and these are the things that I want to talk to the doctor about. So before I go to my visits, if there's something I'm concerned about, I write it down, but also, I look to see what are the current clinical trials? Is there a drug out there that seems promising, or people have told me about that seems promising? But I write a list first, and then that way I know what I want to talk about. I think some of the biggest mistakes patients make is that they come into their doctor's office, and they just sit there and they wait for their doctor just to tell them everything that they need to know.

Your doctor wants to talk to you about your current state, and are you stable, but the patient, I think, needs to be prepared to drive those questions and answers, so the doctor knows what you're concerned about, and the doctor can give you the information that you need. So, to do that, I'm a researcher. So I look at first, the drugs, different research trials, news other patients might have told me that I think is important. If I've gone back over my medical records and I've seen a change, these are the things that I come prepared to ask about, and then I think the visits are much more effective.

Andrew Schorr:
Great advice. Nick, what about you?

Nick Napolitano:
I think Samantha nailed it. We're very much alike in that way, where we're—I do a lot of research. I have a list of questions that I go to, and I call it a meeting, right, that I go to the meeting with my doctor. I look at it this way, you should have a goal for every single doctor visit. Your doctor, like Samantha said, is not gonna sit there and just tell

you everything. He's gonna want to hear from you. He's gonna know that you're involved in your disease and you've done some research and want to know what your concerns are.

And I will say, it's extremely important that you're going to an MPN expert. Because I had an experience where, before Dr. Heaney, where I did have a list of questions for my previous doctor, and he deferred me to another doctor because he wasn't quite up to speed on some of the questions I had about the drugs and progression and things of that nature, and so, very, very important that you're seeing and MPN expert, so that if you do come to that meeting with a list of questions, you're getting the answers that you need.

Andrew Schorr:
It's a business meeting, or a job interview, however you want to prepare, see it in your mind. So Dr. Verstovsek, let's just get the final comment from you. What would you recommend to patients or even family members with them, how to approach, from their end, treatment decisions?

Dr. Verstovsek:
First to say, Samantha and Nick have really done an excellent summary on the patient perspective, and this is really what I'm looking, in all my patients, to achieve. The best patient, for me, is the one that engages with me in the decision making, and understanding what the problem is, what you know about it, what we're gonna do about it. And then, decision actually is made by the patient, him or herself. Because I'm here to help patients go through life with the disease under good control, with my advice. I'm telling the patients what I would suggest be done, and of course, the patient is the one that is the decision-maker after all.

So, education and engagement are the two aspects that I emphasize to every patient that comes through the door. This is how it should be done. You should know what you are dealing with, to the extent possible. Understand it, go online, go to the chat rooms, go to Patient Power. Educate yourself, and then engage. Learn about it, discuss it with the doctor, and understand your particular position. What is the position for you therapy, whether this is the best one? Seek a second opinion. I tell my patients go for second opinion. They come to me for second opinion.

Don't ask too many second opinions. These are not the second opinions anymore. Third and fourth and fifth, there are too many opinions. We are all human and we differ, okay? Two are okay, three, all right, but no more, because then you're shopping for a doctor. That's not good enough for your mental status. And then, be a team member. That's what we all come to do, right? It's not only, in my clinic, about me. There's a physician assistant. My Julie is an amazing physician assistant, and all my nurse. So it's a team effort from us, and the patient becomes a team member, too. It's an MPN team that tries to do the best for your particular case.

Andrew Schorr:
This is great advice, and again, you, the viewer, need to see how this applies to you, your specific situation, but the process is a very wise one. You've gotten a lot of wisdom here, and I want to thank Samantha Trahan,for being with us from Houston, and Samantha, we wish you all the best, with a match, with a transplant, if and when you proceed with that. Sounds like you will. And I hope you'll keep in touch and keep us informed. All the best to you, Samantha.

Samantha Trahan:
Thanks so much.

Andrew Schorr:
And Nick, you'll be checking back with your doctor as you see changes, and going through this business meeting discussion, to see what's right for you. We wish you all the best, and we hope you'll keep us informed as well.

Nick Napolitano:
I will, thank you for having me.

Andrew Schorr:
Okay, well, all the best with your business meetings in San Francisco, on your travels from New York. And Dr. Srdan Verstovsek, being with us so many times, thank you for your dedication and another time we'll talk about all the stuff that's in the lab. Right? At your lab and others, and so that we can be well informed and give us hope. But thanks for helping us with this discussion today. We really appreciate your devotion to us.

Dr. Verstovsek:
Thank you, it was a great pleasure. Thank you all, and good luck to everybody.

Nick Napolitano:
Thank you, doctor.

Andrew Schorr:
Well, I'm Andrew Schorr, in California, right now stable with myelofibrosis, but in ongoing discussion of what could be next for me, when and if it's needed by all these indicators we were talking about. Thank you for watching. Send your questions and comments any time, to questions@patientpower.info, and as I like to say, "Remember, knowledge can be the best medicine of all."