Audio Guide 1: Understanding Precision and Personalized Medicine for Rheumatoid Arthritis

Narrator 00:00
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Dr. Daniel Hernandez 00:09
Welcome to Audio Guide One "Understanding Precision and Personalized Medicine for Rheumatoid Arthritis" produced by the Global Healthy Living Foundation and made possible with support from Scipher Medicine.

Zoe Rothblatt 00:20
This audio guide can help you learn more about precision and personalized medicine and how it impacts rheumatoid arthritis care, so you can better manage your RA and more importantly, start feeling better. Remember, this is not a substitute for professional medical care. Always talk to your doctor about issues concerning your health and medical condition. Let's start out by defining rheumatoid arthritis or as people commonly refer to it, RA.

Dr. Daniel Hernandez 00:49
RA is a chronic inflammatory autoimmune disease that affects your joints. When we say that RA is an autoimmune disease, it means that there is an abnormal response of your immune system. Your immune system is normally responsible for identifying germs and other foreign substances, but in RA, the immune system starts attacking your own healthy tissues and cells specifically in the joints. Inflammation can cause irreversible damage to your joints if it is not treated, which can impact your mobility and physical function.

Zoe Rothblatt 01:24
And that's why finding the right RA treatment plan is so important. But it isn't as easy as it sounds. Some RA patients get lucky, they get diagnosed quickly and start on a medication and it works really well without causing too many side effects. But the reality is that for many people with RA, unfortunately, finding the right treatment is far more challenging. And for those who are newly diagnosed, there are many treatment options to choose from. And while having options is good, it may be daunting to try and figure out where to get started.

Dr. Daniel Hernandez 01:57
Exactly. While finding treatment can be an emotional journey. The good news is that there is hope in the form of an emerging area of science that has been evolving rapidly over recent years -- that is personalized and precision medicine.
Zoe Rothblatt 02:12
So Daniel, those are big words, let's break it down.

Dr. Daniel Hernandez 02:15
Sure, they both refer to different aspects of a person's individualized treatment plan. But they take into account different information, all with the goal of finding the best treatment for an individual based on their unique characteristics and needs.

Zoe Rothblatt 02:32
Okay, I like the sound of that. So tell me, what kinds of information goes into this?

Dr. Daniel Hernandez 02:38
Precision medicine takes into account objective data, like labs, hereditary information, and individualized genetics. And personalized medicine refers to everything that you speak to your doctor about and may not be observed in lab tests. So subjective data and different things that you speak to your doctor about that aren't seen in a lab. All of this helps your doctor tailor treatment choices specifically for you.

Zoe Rothblatt 03:04
So for personalized medicine, that's things like speaking about your symptoms or side effects, say sleep disturbances or anxiety. Is that right?

Dr. Daniel Hernandez 03:13
Yeah, that's right. It can also be talking to your doctor about your treatment preferences, say you prefer taking your medication in a pill form versus an injection. All of this falls under personalized medicine.

Zoe Rothblatt 03:23
Okay, that makes sense. Basically, it's as you share information, your doctor is able to better understand you. And then your care becomes more personalized, because you're making these decisions together using your preferences and lifestyle to do so.

Dr. Daniel Hernandez 03:38
Exactly. It centers around having open conversations with your doctor. Personalized medicine also includes questionnaires that take into account patient reported outcomes, like the rapid 3 assessment. Also, keeping a journal or tracking your symptoms on an app like ArthritisPower in between these visits can help with this. So you remember to bring up what's going on and what's important for you.

Zoe Rothblatt 04:00
And here's an example, let's use ArthritisPower, which you just mentioned. So if I was tracking my symptoms in the app, and you know, I noticed things like my pain keeps coming back a few days before I'm due for my next dose of treatment. Then if I took that, and I told my doctor, we could use this information to adjust the dosing and frequency of my treatment to avoid all that pain that keeps coming back. And that's using personalized medicine.
Dr. Daniel Hernandez 04:26
Yes. You and other patients are probably already doing personalized medicine without realizing there is a name to it.

Zoe Rothblatt 04:33
So how does precision medicine fit into all this?

Dr. Daniel Hernandez 04:36
Good question. Let's start with an example. Let's do it. We were talking before about the patient journey to finding the right treatment. Let's go back to that. Let's say we have a patient who was diagnosed in the last five years and was doing well on a treatment until it unfortunately stopped working recently. After conversations with their doctor, they started on a new treatment and a few months have passed and they aren't feeling much relief. So now they're wondering, is it even working?

Zoe Rothblatt 05:05
Yeah, that's a really interesting scenario. And I've heard a lot of patients talk about this. That wait and see period and how frustrating it is. It can be scary and really emotional to not know when you're going to start feeling better, or if you'll just have to try a different treatment altogether.

Dr. Daniel Hernandez 05:22
And that's where precision medicine can come in. There are new tests that can help determine if you're likely to respond to certain treatments. For example, there is a blood test called PrismRA that uses precision medicine to predict if an RA patient is unlikely to respond to a TNF inhibitor, which is a certain class of drugs that are used to treat RA.

Zoe Rothblatt 05:43
Well, that's huge. That could really eliminate a lot of the trial and error that comes from a one-size-fits-all approach that's typically used when choosing treatments. Daniel, do you think this could actually work?

Dr. Daniel Hernandez 05:55
Yes, in fact, we've seen how precision medicine has transformed cancer care. Cancer patients are often tested for genetic changes and biomarkers, biomarkers being the biological molecules found in the blood or other fluids or tissues. And all of this information is used to create a treatment plan. And while precision medicine for RA is not quite as robust as it is for cancer, scientists are making progress.

Zoe Rothblatt 06:22
So what else are we seeing with precision medicine and rheumatic disease? Does precision medicine have anything to do with seronegative and seropositive RA? I've heard these terms around and I'm wondering how it fits in?

Dr. Daniel Hernandez 06:35
That's a very good question. So let's first define what seronegative and seropositive RA is. So within RA, most patients are diagnosed with seronegative RA and other diagnosed with seropositive RA.
Seropositive means that a person has a presence of rheumatoid factor and or a positive anti-CCP, these are found in blood tests. Seronegative is when a person does not have the presence of rheumatoid factor and anti-CCP but is still diagnosed with RA based on certain established criteria.

Zoe Rothblatt 07:10
Okay. And from what I've seen, there's ongoing research that these two types of patients respond to treatment differently. Is that right?

Dr. Daniel Hernandez 07:19
That's right. So when we talk about precision medicine, we can talk about how this information in our genes like being seropositive or seronegative can help determine the right treatment.

Zoe Rothblatt 07:30
Wow, that would relieve so much stress to just be able to have those answers, or at least more clues in the right direction when choosing a treatment.

Dr. Daniel Hernandez 07:39
And the thing about precision and personalized medicine is that they can be used at any stage of the patient journey. Whether you're newly diagnosed living with RA for a few years or many years, it can help you have more informed conversations with your doctor and decisions about your care are elevated.

Zoe Rothblatt 07:57
And here's one last question for you, Daniel. Can precision medicine help with more than just treatment decisions?

Dr. Daniel Hernandez 08:05
Yes, it is also being researched for earlier diagnosis of the disease with the aim of helping patients get diagnosed sooner, or even for some chronic diseases being able to start preventative treatment early on. So the sooner you start treating it, the less negative effects hopefully you'll have.

Zoe Rothblatt 08:24
So it really is all about keeping people healthy and feeling good at the end of the day.

Dr. Daniel Hernandez 08:30
Exactly. And I encourage our listeners to talk to their doctor about precision and personalized medicine and how they might use all of this in making healthcare decisions for their RA healthcare journey. Thanks for listening to our audio guide on precision and personalized medicine. I'm Dr. Daniel Hernandez, Director of Medical Affairs and Hispanic Outreach for Global Healthy Living Foundation.

Zoe Rothblatt 08:54
And I'm Zoe Rothblatt, Associate Director of Community Outreach for GHLF. For more information on rheumatoid arthritis treatment and precision medicine, check out the let's get personal podcast,
available wherever you listen to podcasts. This audio guide was made possible with support from Scipher Medicine.

Dr. Daniel Hernandez  09:14
And for more information about managing rheumatoid arthritis and to join a free worldwide support and advocacy community of RA patients and their families, visit CreakyJoints.org, which is a part of the nonprofit Global Healthy Living Foundation.

Narrator  09:32
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