**Genetic Counselors and Your Healthcare Team**

Host: Brought to you by the National Society of Genetic Counselors, this is Genetic Counselors and You. Answers to your genetic questions by genetic counselors. For more information about genetic counselors, including what they do and why you might see one, visit aboutgeneticcounselors.com.

Amy: Welcome to Genetic Counselors and You, a podcast than answers your genetic questions by genetic counselors.

Amy: This episode will focus on how genetic counselors play an active role in patient care, and how we work with other healthcare providers, especially primary care physicians.

Amy: The episode will also talk about how genetic counselor's special training in genetics and counseling makes them unique and sets them apart from other healthcare providers.

Amy: I'm the National Society of Genetic Counselor's president, Amy Sturm, and I'm here today with one of my favorite colleagues, Dr. David Rolston.

Amy: Dr. Rolston is the chair of the Department of Medicine Specialties, and he is also the Director of the Division of General Internal Medicine at the Geisinger Medical Center in Danville, Pennsylvania.

Amy: Dr. Rolston and I work together at Geisinger, and we have really become acquainted with each other as he plays a large and central role on our Clinician Advisory Committee for our MyCode Community Health Initiative, our large bio-bank of individuals who undergo genomic sequencing and then receive results from genetic counselors.

Amy: And it'll be really great to hear from Dr. Rolston today how working with genetic counselors has allowed him and his team to integrate genomics for his patients.

Amy: Dr. Rolston, it's great to have you joining us today.

Dr. Rolston: It's my pleasure.

Amy: So how long have you been here at Geisinger?

Dr. Rolston: September will make 11 years, and 11 very good years.

Amy: That's wonderful.

Dr. Rolston: I came to Geisinger from the Cleveland Clinic where I'd worked for about ten years, and also had a very good time there.

Amy: Well two wonderful institutions and we're so happy you're here with us and providing your excellent patient care to the patients and have really been open to receiving genetic results for your patients. We know that sometimes it can be a learning curve getting that genetic information back for your patients.

Dr. Rolston: You are probably aware that our training in med school in genetics is very limited and rudimentary to say the least, and having experts working with us side by side, as we do in other fields in medicine, helps us provide the best possible care to our patients.

Amy: So as a healthcare provider, how would you describe the role genetic counselors play in your patient's care?

Dr. Rolston: They play an extremely important role, partly because the knowledge base of most physicians in genetics is fairly limited, and they provide us with that addition knowledge to help take better care of our patients. Not only directly providing information to us, but also to our patients in a language that the patient will understand and perhaps equally important we will understand.

Amy: I think that's a great point, and really genetic counselors have their entire training within their master's degree programs to focus in on all of that deep science in genetics, but also the psychosocial counseling skills. So I think you summed up kind of really what that training brings to the table and how it supplements that of you and your team members.

Amy: So tell me a little bit more about how you and your team do work with genetic counselors.

Dr. Rolston: So clearly the one program which helped to springboard our collaboration was the MyCode Program, and on its heels was the exome sequencing program which is being offered to many of our patients, so that we are beginning to see these results which are often negative but equally there are positive or abnormalities that are detected where we clearly need the help of our genetic colleagues to help us decide what the next step should be.

Amy: Absolutely. And what happens at that point? Do you oftentimes recommend that your patients discuss their results with a genetic counselor?

Dr. Rolston: Initially I do a quick survey of the literature so that I at least seem knowledgeable when I'm talking to my patient about that abnormality, and then hand the patient over to the genetic counselor to further the discussion and to make recommendations as to what next needs to be done.

Amy: That's great, and it's also really great to see how the genetic counselor can probably then help that person understand their result and like you said, put it into a language that they can understand and then hopefully also share it with all of their at risk family members.

Dr. Rolston: Yeah, absolutely. So the focus is obviously the patient, but also their family.

Amy: Right, yeah. Such is the nature with all of this genetic information and we hope it can be powerful to these patients so that truly they can use it to improve their healthcare and their children's, and brothers and sisters and other relatives.

Amy: So what expertise is it that you think the genetic counselors bring that may be somewhat different then yourself or some of your other healthcare provider team members?

Dr. Rolston: I think a far superior knowledge of genetics.

Amy: Well I'm glad that my graduate training is paying off and that the value of that is seen. That's great, great to hear.

Amy: So I guess, what types of questions and concerns do you think it makes sense for someone to speak with a genetic counselor in addition to yourself in general internal medicine or a primary care provider, or maybe even a specialist? Where do you think really that genetic counselor comes in to help with the questions and concerns?

Dr. Rolston: I think in two instances. One is if there's an abnormality in the exome sequencing result, or if the patient has concern about, my mother has this cancer or this disease process. What are the likelihood that I have the same problem?

Dr. Rolston: So I think those are the two major areas that we would seek the expertise of our genetic counseling colleagues.

Amy: I think that makes a lot of sense, and oftentimes right, you might have that patient come in who has concerns about their own personal family history. Then you can start that evaluation process by the genetic counseling team to really dig into that very detailed three or four generation pedigree or family tree to put all those risk factors and clues together to figure out what might be the genetic testing option that can help that family.

Amy: And then also like you said, a lot of patients even at institutions here like ours at Geisinger, but even in the space of direct to consumer genetic testing and some of those companies. A lot more individuals are getting genetic information on themselves and then asking questions, bringing all that vast results to their primary care provider and I think that's great to realize that genetic counselors are there to be able to step in and help in those situations too, to make sense of all of that genetic and genomic information that some individuals may receive and want to really make a lot more sense out of it and then also figure out how to use it.

Dr. Rolston: Absolutely, and when we look at the electronic medical records and the notes written by our genetic colleagues, it's nice to see the family tree mapped out beautifully, indicating where the problem is and what the likelihood of the patient developing a particular disease process is.

Amy: So being able to have that family history information in the electronic health record like you said then can help you as the provider take care of that patient and put into effect really a prevention plan, hopefully, for what is running in the family essentially.

Dr. Rolston: Absolutely, couldn't agree with you more.

Amy: That's great.

Amy: So we know that healthcare is of course change very rapidly, and we are really on the forefront of all of the different innovations. We know that telehealth can really help individuals address their needs, and also provide personalized medicine in that way.

Amy: So I'm curious, what do you really see as more of the future as we kind of move on of healthcare as it relates to genetics and genomics?

Dr. Rolston: So the way I'd answer this question is two-fold. One is I see genetic screening becoming routine in the next few years. At Geisinger we are already beginning to do that. And as our understanding of genetic-related diseases increases, in think in the next five years maybe sooner, we'll be ordering genetic testing very much like we do an EKG or a lipid profile or what have you.

Dr. Rolston: The other aspect of genetic counseling is clearly what I spoke with you about in terms of physicians, advance practitioners better understanding what the results truly mean, and more importantly identifying abnormalities which currently are not associated with diseases, but as our knowledge expands may be associated or markers of diseases.

Amy: Absolutely, and to your first point, thinking about genomic screening becoming part of routine care for every single patient is really an exciting notion and could be such powerful information for every patient that might be in a primary care clinic.

Amy: And like you said, a lot of these screening results could be negative and there might not be something in particular for that patient. But what we know is that almost all of us have genetic risk variants that give us risk for something, whether it be high blood pressure or different types of cancer, adult onset neurological conditions like Alzheimer's Disease, we all some type of risk.

Amy: And so, do you have any idea how we can be innovative and make sure that we can have every patient benefit from this information, since we know pretty much at this point most of the population in the country doesn't really have this at their fingertips yet.

Dr. Rolston: I would view this very much like the cardiac risk assessment tool which we currently use, the prediction of a patient with prediabetes moving on to diabetes over the next year or three years. So we are already using these sort of prediction tools in everyday clinical practice and to have a genomic tool which says that you have the potential to develop this illness or that illness will at least, in some patient's mind, modify their lifestyle if that abnormality can be modified by so doing.

Amy: I think that's a great analogy and really if we do have, like you said, that genomic tool for every patient, if it can be available in the electronic health record, that's another great way that genetic counselors and primary care physicians I think can really interact and work together as a team to build those tools. And as you know, I've oftentimes consulted you to look at some of the tools that we are trying to build, to really help physicians, other healthcare providers who may not have that expertise genetics training, but who need to be able to utilize this information for their patients when they meet with them in the primary care clinic. And hopefully we can continue to work together in that way to build those tools to truly integrate genomics for all.

Dr. Rolston: Yeah. Absolutely. There's no question that as genetic information becomes more widely available, all clinicians need to brush up their knowledge with regard to genetics so that they understand the abnormalities that they're seeing so that they can be proactive, collaborative with the genetic counselors with our patients to offer the best possible care to them.

Amy: That's great. I know that part of my role has really been to integrate a lot with cardiology and cardiovascular specialists, and we've seen a lot of genetic counselors integrate in areas like oncology, neurology, cardiology. But I think we're going to see so much more integration with genetic counselors in other specialty areas of care too, because again really genetics does have some component in almost every organ system and the risk that patients have.

Dr. Rolston: Couldn't agree with you more Amy.

Amy: Well that's great. Well, thank you so much Dr. Rolston for joining me today.

Amy: I guess the last question that I have for you is do you have any words of advice to other providers on how they might be able to integrate genetics into their patient's care? If they really aren't set up with a clinic yet that has this type of information, what would be some good steps to get started?

Dr. Rolston: So the very first thing to do is to recognize that this is an upcoming field in clinical medicine, and one that has impact on healthcare delivery to our patients. So to collaborate with our genetic counselors is critical to achieving that end.

Dr. Rolston: My advice to my clinical colleagues who are PCPs, internists, specialists, what have you, is to develop that partnership and to start looking at genomic results so that you understand them better and can better discuss them with your patients, with our genetic counselors just as we do with any other sub-specialty.

Amy: I'm so happy to hear you say that as your words of advice, because truly the mission and really the future strategies of the National Society of Genetic Counselors is to try to build these collaborative models of care with our physician partners, with our other colleagues in healthcare so that we can really bring the expertise of everyone to the table to best improve patient care. So I think that is a vision that we can definitely achieve moving forward.

Amy: If you are interested in finding a genetic counselor, you can always visit the website findageneticcounselor.com.

Amy: It has been an absolute pleasure sitting down here today with my colleague, again, Dr. David Rolston, and hearing all his wonderful thoughts about how genetics and genomics can truly be integrated into healthcare for the betterment of all of the individuals and the patients that we serve.

Amy: So any final messages for us Dr. Rolston?

Dr. Rolston: No. I'd like to thank you for inviting me to speak with you and to listen to some of my thoughts.

Amy: Well thank you again for joining us. It was a pleasure sitting down with you today.

Speaker 1: Thank you for listening to this episode of Genetic Counselors and You. For more information about genetic counselors and to access tools and resources mentioned in this episode, visit aboutgeneticcounselors.com.