



Episode 9 Drug Safety - Dr. Ruth Namuyinga

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RN: “Someone needs to make sure that those medications are safe, that they are efficacious, that they do not hurt the patient but actually help them. So I always see that we are on the same team. And I would like to say that I've had some doubts in my life, but choosing a nonclinical career has not been one of them.”

HF: Welcome to The Doctor's Crossing Carpe Diem podcast. If you're questioning your career in medicine, you've come to the right place. I'm Heather Fork, a former dermatologist and founder of The Doctor's Crossing. As a master certified coach, I've helped hundreds of physicians find greater happiness in their career, whether in medicine, a non clinical job, or something else. I started this podcast to help you discover the career path that's best for you and give you some resources and encouragement to make it happen. You don't need to get stuck at the white coat crossroads. So pull up a chair, my friend, and let's carpe that diem.

Hello, hello. Welcome to the Doctor's Crossing Carpe Diem podcast. Today I have a wonderful guest. Her name is Dr. Ruth Namuyinga. I first read about her in the 50 Non Clinical Careers book by Dr. Silvie Stacy. I have to say, when I read the description that Dr. Namuyinga wrote about the work that she does in drug safety, I said I have to have her on the podcast because I've never read a more clear and cogent description of what a physician actually does in this role up until this time. To tell you a little bit about the kind of person Dr. Namuyinga is when I reached out to her to see if she'd be on the podcast, she said, “Absolutely”. She really wants to help other physicians figure this whole thing out and share her experience. She also has some very interesting stories to share with you.

Dr. Namuyinga is a board-certified preventive medicine physician and epidemiologist. She has progressed into the drug safety area into higher level positions. So I think she's a great person to tell us about the range of opportunities in this area, as well as telling you how to get started without any prior experience. So it is my absolute pleasure to welcome Dr. Ruth Namuyinga to you, who is accompanied by her very well behaved dog, Leslie. Hi, Ruth, welcome to the podcast.

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RN: Thank you, Heather. Thanks for having us. Leslie and I are excited to be here.

HF: We're really happy to have you and she's adorable. I wish you could see her guys, both of them are. Well, I'd love for you to share with our listeners a little bit about how you got into this area.

RN: Yes. So thank you for the opportunity again. So my interest in a nonclinical career. At first I wasn't thinking of drug safety or pharmacovigilance. It kind of grew on its own along the way. My journey really starts back in medical school back in Uganda where I trained as a physician, and then did a year of internship thereafter. So it was during this time that I encountered frustration. I would say, in seeing a ton of my patients come back to see me with the same complaints, with the same diseases.

Uganda is endemic in malaria, infectious diseases, and vaccine preventable diseases. It also has a lot of malnutrition. So it broke my heart mainly to see mothers come in with their children month after month with the same diseases, recurrent malaria, recurrent vaccine preventable diseases and infectious diseases. And it was really hard on them. They did not have the resources to take care of their children. Many times they brought in the children for treatment after days, perhaps weeks of having symptoms. And when you sat down with these mothers to kind of take the history and try to understand their circumstances, they all spoke of similar challenges of lack of resources to bring in their children.

They were waiting perhaps for their husbands to give them money so they could come for treatment. They did not know enough about the diseases themselves. So they will try on best therapies with herbs and other remedies and then when the child would then progress, maybe the child has stopped feeding or had convulsions or is non responsive is when they would get the cue to come to the physician. And many times we could do so little for these children because the hospitals were not well staffed or, and didn't have enough supplies or medicines. So there were a lot of systemic challenges that we were facing.

So I thought to myself, perhaps I would have a bigger impact, working more upstream, working in preventing these diseases, perhaps educating patients on taking better care of themselves in preventing disease rather than treating it. And so along the way, that was really the genesis of my interest in a nonclinical career path. Along the way, one thing led to another and then I ended up in drug safety. And I can talk more into that, if you want.

HF: Oh, I can completely understand how that would be so heartbreaking. When I was in medical school, I went to Malawi, and did dermatology there. Just seeing that poverty and the need, and like you mentioned, simple things to treat conditions that, you know, we just take for granted

that we can treat these things and prevent them. So then you did the preventive medicine residency, and then what happened after that?

RN: Yes, so after doing preventive medicine, I trained in epidemiology. I did my Master's in epidemiology and biostatistics. And then I also did an epidemiology fellowship at the CDC. I worked with the Center for Global Health and continued to work in developing countries on infectious disease prevention, setting up national surveillance systems and working with healthcare workers in better treating patients. It's funny that during residency, actually, we had many speakers come in to talk to us about the nonclinical parts as well. And one of the speakers was a physician in pharmacovigilance, in one of the pharmaceutical companies, and I don't know why his talks stayed with me. But he seemed really passionate as he spoke about the work he was doing in drug safety. And perhaps it was because I had previously worked on a clinical trial back in Uganda, in looking at antimalarial therapies in children. We were exploring artemisinin based therapies at the time, the standard of care. Part of my role at the time as a research physician was looking at adverse events of this new therapies in the cohort of patients. And so when he spoke of his role in pharmacovigilance, and how he looked at adverse events in the population, I think maybe there was a connection there. And I said, I want to find out more about drug safety and pharmacovigilance. So after my fellowship, I decided to, to follow that curiosity. And so that led to, you know, exploring ways of getting into drug safety.

HF: Okay. And for listeners, would you say drug safety is equivalent to pharmacovigilance? Can you use those terms interchangeably?

RN: I think I would use them interchangeably. Of course, pharmacovigilance is really broad and it's more than just, you know, what the physician does, it spans a huge, broad range of activities, but it's part of it, yes.

HF: Are you able to describe to the listeners what exactly a physician in drug safety is doing? And I know there's different areas where they can work, but maybe the more common areas for the physician who would be getting started?

RN: So for a starting physician, in pharmacovigilance, I would say, you know that different companies use different titles, but the roles really are the same. And I think if this is the first role in the pharmaceutical industry, the first step is to really understand the terminologies. The different regulations for the pharmaceutical industry is a highly regulated industry, just understanding the global regulations about that. But from a pharmaceutical physician, in pharmacovigilance, you're really part of a team made up of business professionals, researchers and scientists, and all of them working towards a common goal of delivering safe medications to

patients. So they are working with global partners such as health authorities, regulators, international pharmacovigilance organizations, all designed in ensuring that medications are safe for all who use them.

HF: Just to clarify, there are sometimes where you're working on the clinical trials to assess safety, but then it can also be on drugs that are already out and post market?

RN: That is correct. So safety physicians, depending on the company you're in. Every company is organized differently, but in my previous role, my entry position allowed me to work on safety of products in development. So you look at the safety of the compound and you review the data in animal models. You look at it first in humans, and then you look at it in clinical trials, all phases of the clinical trial. And I also had a product that was already on the market. So then you look at how do you determine and assess these adverse events in the post market setting? And how do you look at it in the clinical trials?

HF: Because, you know, we're talking right now about a vaccine for covid. So there are physicians who are looking at what's going on in the clinical trial using that vaccine. And they're addressing these things that you are talking about.

RN: Yes, so for those physicians that are working on the vaccine in the trials, I think they are looking at the data that they're reviewing in clinical trials.

HF: Yeah, so in your role, like a physician could potentially be looking at what's going on in the drug development. But in that same position, also be looking at drugs that are already out in the market, it's not necessarily one or the other in terms of the position.

RN: In some companies, it's one or the other. I think in the smaller companies with a smaller portfolio of products, a physician can work on products, both in development and on market. But sometimes with the bigger companies with a huge portfolio, I think for matters of being able to manage everything, physicians can work on things in development or on the market. But it also depends on the role. So there are different roles for physicians just within drug safety. Of course, there has to be that overall position for a physician who is overseeing all the safety for a product from clinical trial to post market. And then there are different specializations within that would allow a physician to just work on either clinical trial, or post market or pieces or combination of either one, so there isn't any model that is fixed. And even when working in, you know, the post market setting, you would have to know what happened in clinical trials, because that will help you understand what you're working on right now. So they're not really exactly

separate. You need to know what's happening in either field. But it depends on how big the product is, and how much support is needed for it.

HF: I see. Are you able to describe, if a physician who's coming from clinical practice and they really don't have any experience in pharma, what might it be like for them to start in one of these positions? What might the day to day be like? How might they get trained?

RN: Yes, so I will speak to my experience, and then speak to other things that I've seen other physicians do. So I was lucky enough that when I wanted to make the transition to the pharmaceutical industry, there was another physician willing to train me and bring me on board. So she was the overall safety, the head of safety, and she was looking at everything from clinical trials to a post market and she kind of took me under her wing and trained me in drug safety.

So then I got familiar with the way things are done and with the way assessments are made in pharmacovigilance. And just getting to know the regulations and the different reports that are involved in reporting safety data to help authorities and then for other physicians I've seen them take another route where they come in, maybe as fellows within the company. So I think companies now are making physician entry level positions as fellowships. And in this role, they give the opportunity for the physician to rotate in different functions within safety, and get to know the different roles that are in the company in all those areas. And then after a year or two of doing that, then the physician would get a permanent position in any area that they would like if they want to stay.

HF: I know that we really like to have training programs. So that could be really appealing for some physicians. Can you describe how a physician in drug safety might evaluate a case? What is some of the information that they're getting and what kind of determination that they might need to make?

RN: So the evaluation of a case is similar to the evaluation of a patient coming in into the clinic or the ER or something. The patient comes in, you take a history of the you know, you get the symptoms, the signs, you do a physical exam, and then you do labs, imaging, and then you come up with a differential diagnosis that is really similar to the work that we do in pharmacovigilance. You get a report, a case comes in as a report of an event after a patient took a medication. You want to know how soon after taking the medication did the event occur?

What other medications were they taking? What's the patient's medical history? You know, you want to understand the circumstances around the event. You want to know, was the patient hospitalized and what treatments were they given? How did they respond to treatment? If the

drug, that suspect drug was discontinued? Did the patient recover? And then if the patient recovered, did they restart the medication? And if they restarted, did the event recur? So you want to get the story and kind of chronology of events to make that assessment and it's really very similar to taking a very good history.

HF: And when you get this information, do you feel like you have enough to make the determination? Are there ways that you can go and get additional information if you need it?

16:14 Absolutely. Sometimes, a report will come in and there isn't enough information to make that full assessment. And absolutely, in cases like that, you want to do a follow up. There are systems in place for the pharmaceutical company to trigger follow-up for additional information. Either speak with the healthcare provider, if that's necessary, or the reporter, if the report is a patient themselves, you want to speak with them or have them provide that information. And that'll help add more details to make that assessment.

HF: Sounds a little bit like detective work.

RN: Yes, yes.

HF: Figure out who done it or is it really the drug? Or is it you know, something else that they did, a bad burrito or an interaction, or their disease state?

RN: Yes, yeah.

HF: From what you know, of this work, what kind of physician do you think would be a good match?

RN: I think a physician who, who is curious, is willing to learn, who wants to try new things will be great at this, because it's like you mentioned, it's really about detective work. It's about putting together pieces of a puzzle. So you can see, kind of a picture. And we all have enough training as physicians to do that because we do that. Even in our clinical work, you're trying to find out what that diagnosis is, regardless of your specialty. And this is not any different. So the only thing that really stands in the way is, am I willing to do it outside my comfort zone and try a different arena and see if I would like that.

HF: I know one of the things that a lot of physicians are curious about is what are the requirements to get into this area? And is this even something that a foreign medical graduate can do?

RN: Absolutely. I know physicians who are foreign medical graduates who are not board certified in the United States, and they are in the pharmaceutical industry. They're different roles for physicians beyond pharmacovigilance but their expertise would be applied. And let's not forget

their other experiences that would make a physician really good for roles within the pharmaceutical industry. For example, some physicians have done work in, for example, the World Health Organization or worked with vaccine programs. And if pharmaceutical companies working on vaccines, they would love to work with physicians like those because they know how, you know, they see beyond just the vaccine being given to the patient. They see a global perspective to that, how they distribute in different countries, the different regulations and how all that expertise is needed by pharmaceutical companies. So different experiences, and different trainings that physicians have, make them really qualified for positions in the pharmaceutical industry.

HF: I think this is kind of the great news to some listeners out there because that frustration of being a foreign medical graduate or not having board certification or not having licensure in this country can feel like a real roadblock, and knowing that there's avenues in the pharma industry will be very encouraging. Well, let's look at specialties. Is this pretty much open to any specialty?

RN: I would say all specialties are in demand for this work. The portfolio in the pharmaceutical industry is so broad that any specialty can find a home. Some companies are specialized, for example, in oncology products, others in pulmonary diseases. So, you know, an oncologist would find a home, for example, in a company that is more oncology focused, and a pulmonologist in a different setting for you know, for example, pulmonary diseases. So all specialties have a home. It's just finding the right one for you, if you want to stay in your field of expertise. That is definitely something that's possible. Other companies have multiple different therapeutic areas, which makes it even better you can stay within a company and work within your specialty.

HF: Well, that's great news too. For instance, could a pathologist or a radiologist fine work in this area?

RN: I would say yes. But again, that also depends on how willing someone is to learn new things outside of their specialty. So a lot really is dependent on the physician themselves, than the company or the job itself. So for me, I have a strong belief that regardless of your specialty, there's a home for you in pharma.

HF: You're going to have a lot of people smiling out there. Alright, so let's say one of the listeners out there is thinking I would really like to do this, what are some of the steps that he or she could start taking to investigate the possibilities and prepare themselves?

- RN: I think one of the things is, first, I would say just do a great job at whatever you're doing right now. You know, if you're seeing patients just really do a great job being a great clinician. And I say that because we need really good clinicians. When I go to the doctor myself, I really appreciate it when he takes a good history, he or she takes a good history, and a good exam. And the other thing is my observation now is that pharmaceutical companies are looking for those really seasoned clinicians, the ones who are really good at their jobs. And the other thing I would say, you know, if you have a few hours, a couple of hours, here and there later on, for example, to do some research, or work in academia, publish a paper or be a co-author in a paper, that is another great way to build on your portfolio and expertise. I see recruiters these days hunt for really seasoned clinicians with research experience. That's very attractive right now, not being shy about just continuing to do your clinical work, and doing your research. If you're a professor you know, somewhere, just continue doing that. And you'll be surprised that when you're ready to retire from clinical medicine, you have a whole new field to start from and you know, explore.
- HF: If they wanted to start looking for jobs, do you recommend looking on Indeed, on LinkedIn, Glassdoor, or other areas?
- RN: Yes, all those are great options. All those you know, Glassdoor, Indeed, LinkedIn, all those are really great options, any site for where jobs are posted is great. And the other thing that I have seen that has worked for me, too, is just not being shy of going straight to the company's website. Okay, and then filtering for physician roles, and being bold enough to apply for them.
- HF: And do you recommend that they change their CV to a resume to try to have it better match the requirements and the job description?
- RN: That is usually recommended, I think, you know, help the person on the other end, who is sifting through the resumes, make a connection between the kind of experience that you have and what the job description is about. So I think the more you can mirror how your own journey is fit for the position being advertised, I think that would be great. But even if you don't have half the things on that job description, just go ahead and apply for it.
- HF: Right. And I remember when we were talking earlier, you made a really good point that if you completely match the job description that you've done all these things, then you're really ready for the next level job because, (exactly) you're not going to be growing. And for those of you who want to have a resume kit to convert your CV to a resume, I have one and it has templates that you can use and it walks you through all the steps of taking that job description, and helping to customize your CV. So it's a resume that actually speaks to how you could be great at this job.



And I'll link to that in the show notes. So I know we're getting close to time here, Ruth, and you've shared so much great information and we could keep going on but can you give a picture of what a typical day might be like for a physician in one of these roles? I know it will be different, but just something to give them a feel for how things would go.

- RN: Yes. So like you mentioned, there isn't, you know, an actual typical day. But what I would say is that my day usually starts around 7am and ends by 5pm. Mine is a very collaborative role. So interacting with my colleagues in different functional areas is an important part of that day. And the other half is really spent in doing my medical assessment. So I have some alone time in applying the medical judgment and epi expertise in looking at events that have been reported and doing that aggregate analysis for them. So usually, you know, this is great work-life balance, it doesn't continue through the night. It ends by the end of the work day, and I get to have some breaks in between.
- HF: And is Leslie there with you, in case you have any questions, difficult cases? You get a tail wag?
- RN: Yes, yes. To woof or say something and yeah. And maybe we'll take a short walk and be ready to sit back at the desk again. Yeah.
- HF: Is there anything that I didn't ask that you think would be good for the listeners to know?
- RN: I would say that, I think for some clinicians who maybe feel some kind of guilt in abandoning their patients and saying, if I go into the pharmaceutical industry, maybe I won't be doing good, I would just say that we kind of do the same work. We take care of patients, and at the heart of what we do, is really caring for patients. If a physician is prescribing medications, someone needs to make sure that those medications are safe, that they are efficacious, that they do not hurt the patient, but actually helped them. So I always see that we're on the same team. And you will have that continued evaluation of patients through reading their stories. And just to close out, to say that I've had some doubts in my life, but choosing a nonclinical career has not been one of them.
- HF: That's beautiful. I can tell this really is heart-centered work for you. I really appreciate you sharing your story and connecting the dots for us. I would like to just say a little bit about compensation, because that's often a question. Typically, the range for entry level is \$175K, to \$300K, with an average around \$220K to \$240K when you're coming in. Now there can be bonus, as well as potential stock options, which can significantly increase the compensation package. And as you move up in pharma, it's not uncommon to be in the three hundreds, even

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into the 400 level. So I just wanted to give a little bit of guidance there. And coming back to you, Ruth, do you think you'll ever go back to Uganda or be involved in healthcare back home?

RN: I would hope so. I think the story continues. I was inspired by those children, and by their mothers. And I would hope to close the loop and take back all this experience and help them in a way that I couldn't when I first started.

HF: Yeah, I hope so too. And you're doing great work and I think you make a wonderful point that it really takes a village to care for patients. So we need to help from all different angles, and every contribution has value.

RN: Definitely.

HF: Yes. I'm sure we'll love to have you back on the podcast later. And I really, thank you for coming on. What I want to do is with Ruth's help, I'm going to put together an Insider's Guide for you on the most common entry areas for pharma. You'll be able to find that at www.doctorscrossing.com/pharma, that's www.doctorscrossing.com/pharma. And then we'll have some more information about drug safety plus some other areas you can consider in pharma. You'll also find it in the show notes. Alright, guys, really appreciate you listening. We'll be back next week. And don't forget to carpe that diem. Bye for now.

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Podcast details

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