

S3S4 TRANSCRIPT

Dr. Gordon

Hello, and welcome to the Hear Here Podcast! I am your host, Karen Gordon. I am an audiologist and senior scientist at the Hospital for Sick Children in Toronto, Canada and a professor at the University of Toronto. Our goal with these discussions is to explore new ideas that may help people use devices like cochlear implants to hear. Transcripts of these discussions are available alongside the recordings. Season three comes with a new perspective for our team. In season three, we are focusing on the lives and experiences of women who have professional roles related to the care of people with hearing loss. What's a typical day in their lives? What motivates their work? What impacts are they making? We'll hear from five amazing people.

Music

Dr. Gordon

Welcome to episode four, season three of the Hear Here Podcast! In episode four, Annika Gasee speaks with Angela Bottley, who is a Clinical Sales Manager at Vivosonic in relation to equipment that does neurophysiology. We learn about the technology from this Canadian manufacturer which is central to infant hearing screening in our province of Ontario.

Music

Annika

Welcome, Angela.

Angela

Thank you, Annika.

Annika

Yeah. So, can you tell me about the clientele you work with?

Angela

Being a medical device manufacturer, there's two main sources of clientele. There's certainly the obvious one, which would be the end users, as in the clinicians who ultimately use the device in a clinical capacity with their patients, in our case, it's

audiologists dealing with hearing products. But there is also distributors. As we are a small manufacturer, we do not sustain a direct sales force. So, what we have are globally and in the US is third party distributors, meaning a straight commission relationship. They don't work for us. We have no authority over them. They can sell our product as they wish, and they get a straight commission for it.

Annika

I see, very interesting. So, I know as part of the hearing test, you work with infants. So, do you work directly with them or is it just your product that's being tested?

Angela

Do I work directly with the infants?

Annika

With the infants, yeah. Or is it just the products that are being used to test the hearing of the infants?

Angela

The product is used, that's one of its functions, yes, is to test the hearing of infants. I am not a clinician. I am not licensed in any way to diagnose. However, I train the clinicians on how to use the product and oftentimes they will bring in a real infant, sometimes a real patient, sometimes one of their own infants. So, I do have a lot of interaction with infants that way when I'm getting people trained cause the ideal situation is to have them use it in the way it's going to be used in the real world.

Annika

I see. And what are typical daily responsibilities in your position?

00:02:07 Angela

So, as I just alluded to with the training, I do a lot of new end user training. It's a little bit of a daunting test to do. It's a very niche kind of part of audiology, a lot of audiologists don't want to touch it. So to be there with them on site, in their clinic or their hospital, in their environment, not just their patients, but the environment they're going to test in and to be able to guide them through a very kind of hand holding almost and just to get them comfortable with the product, it's so much better than trying to do it online. However, if it's not possible to do it on site, I'll do online trainings and then I also have to train the distributors on not just how to use the system, but how to sell the system. Also, a big part of the job is to make the distributors want to sell our system because they have a choice of

different products of our competitors. These are specialized salespeople, so they sell our competitor's products along with ours, so I need to put them in the position where they want to sell our product.

Annika

And is this something you do every single day or is it just a few times a week? Or is this your full job as a clinical sales manager?

Angela

That's a big part of it. I also do direct sales presentations on occasion and demonstrations. I do conferences. Sometimes I talk, a lot of booth duty at the conferences. The occasional talk to, let's say, an audiology graduate class. Sometimes a bit of hands-on workshops. As travel costs have escalated and they're becoming less and less common.

Annika

For the hands-on workshops, is it with the companies that you're selling the product to, or would it be the audiologists?

Angela

We're the company that sells to the audiologists, so it would be with audiologists. You have a local workshops and then you know, they could come from, you know, for example, we might do one in Tennessee so they could come from Memphis and Nashville and it could be a mixture of new users, experienced users wanting tips and tricks because another part of the job is the support side, the clinical support. People have follow up questions after the training and then people have questions about the results. Sometimes the results that they're getting. They will send me the results, I'll take a look. Sometimes it's just nice to have confirmation from a second set of eyeballs that knows the system really well. Sometimes they're not happy with the results and also just ways to improve them. Kind of clinical support like that. So I do a lot of, developed, actually quite a close relationship with some of our end users.

Annika

That's really nice for sure, and I know you mentioned you work a lot with audiologists. Are there any other specialists that you work closely with?

Angela

As far as the clinicians, it's pretty much all audiologists. I do have to work with IT on occasion because there are IT considerations in hospitals now and that's increasing more

and more. But as far as, and of course, the distributors. But as far as actual clinical specialists, it's pretty much 99% audiologists.

Music

Annika

So just as a general question, what initially sparked your interest in becoming a Clinical Electroneurophysiology Sales Manager?

Angela

Well, I didn't just wake up one day and say this is what I want to do. What I was about, you know, when I was in university and the only education I have is a Bachelor's in Kinesiology. And you know, you're talking with your friends. Some people know for sure they wanna be a doctor. Some know for sure they wanna be a nurse. I knew for sure I want to do something in medicine. But not a doctor, not a nurse. I wanted to do something unique that really would make me highly specialized. So that's all I knew at that age. Then I got into intraoperative monitoring which is monitoring the nervous system during a high-risk surgery. So, for example, the easiest could be a spinal surgery, right? If the patient wakes up after the surgery and says I can't feel my legs, it's too late. So what we would do is monitor the electric function of the spinal cord during the surgery so that we could intervene if there was a change in that signal going up and down the spinal cord so that way it's intervened on right at that point, corrected, and the surgery can continue safely. So that is what essentially electro neurophysiology is. It's measuring nervous system function electrically. And then part of that would be where the hearing comes in is if you had different types of brain stem tumors pressing on that nerve, ABR would be part of that. Measuring the ABR functions throughout the surgery. So that, I loved that, and I started working for a manufacturer training people on how to use the system to do that and I love that. Then I started working with Vivosonic. Initially in training. Still loving it.

Angela

I started to realize that a big part of this type of device is not the device itself, but the support and the training. And that kind of leveraged me into a position to be able to sell it. I've never ever had any sales ambitions when I was younger. I realized that sales doesn't necessarily mean you're, you know, hauling, trying to sell a photocopier to someone who doesn't want one. You're really selling a service and I'm selling the education that we can provide and the support that we can provide as long as, of course, the product itself.

Angela

And being able to understand the product and the technology. Being able to answer questions, whether they're clinical, technical and being able to answer them, you know, correctly is what makes them comfortable as someone that they want to purchase the system from. And so, it just kind of naturally morphed into sales. And I actually really do enjoy the sales side of it, although I definitely would consider myself more clinical than sales.

Annika

What did you do again after you finished your Kinesiology degree, what did you get involved in?

Angela

So that was when I learned how to do the what you called neurophysiologic intraoperative monitoring. So, in that case, I was the technologist in the operating room actually advising the surgeon. Hey, there's been a change in the signal, and at that point they could intervene. It could be that one of the blood vessels was being pushed on too hard. You know where they contract the --

Annika

So, was that specifically for hearing or was that just neurophysiology in general?

Angela

That was not specific to hearing. That could have been spinal cord. Where hearing would be relevant is in certain brain stem tumors. So that if the tumors in the area that affects hearing, I'd be running ABR's throughout the surgery and looking at that ABR response and looking for it to not change.

Music

Annika

Did you do any extracurriculars or any volunteer positions when you were an undergrad that made you more interested in entering this field?

Angela

Not extracurriculars. I just really, really love the nervous system. And so, I took a lot of the well, I took any of the electro phys options that were offered. Got a lot of lab experience, learned a lot. And then, but the real-world applications as far as the operating room, I learned on the job.

Annika

Do you currently do any ongoing training, especially with all this new technology that's advancing and developing?

Angela

So, there's nothing ongoing, there's no CEUs or anything required. Like I said, it's not a kind of streamlined job. It's a very, it's a job through all the combination of education, experience and interest, so there's nothing required except for the fact that if I want to be good at my job and successful, I have to keep up on technology. So, it's kind of a self-motivated requirement.

Annika

Yeah. And do you ever get involved with the research behind the technology that's being used in the labs?

Angela

Yes, I work with our R&D department when they're developing software, kind of give them feedback and I do work a little bit with some of the universities. Sometimes it could be a student project, you know, a thesis.

Annika

I understand. So, it sounds like you're kind of seeing how these devices are being developed, like you're seeing the process throughout, is that correct?

Angela

Yeah, oh, definitely, definitely see the process with ours. All of our production, our development, all of it is in a small office in Canada, but it's all there. We do outsource the make, you know, some parts obviously, but you can see the entire process right there on site as far as that side of it goes.

Annika

That's amazing because you get to see the sales side and you can also see the research side. You can see the way that the products are being developed.

Angela

Yeah, exactly. It's just kind of like, I think the term is Jack of all trades, master of none. Kind of have to know enough about the technical side but also be able to deal with people. So, it's like I said, it's a combo.

Music

Annika

And what do you feel is the most rewarding or fulfilling part of your job?

Angela

Enabling the clinicians to get good results for the people that need them. Rewarding is the end result of a happy, confident clinician. So, they might start nervous because like I said, this could be a daunting task and now they're happy and confident, or they might be upset about something not liking something, and at the end of the day they're happy.

Annika

I see, that's amazing. So, I know a lot of the products you sell are for infant hearing programs and the software is used for identifying hearing loss. So, what's the impact that you can see for the future as technology is always advancing?

Angela

There's obviously a lot a lot of AI applications and development now to make it so that there's the software can be more automated in identifying the response as opposed to having to have a clinician identify it. I don't think they'll ever take the clinician out completely because this is a very sensitive test and as I was saying with all the noise, you'd have to really make sure that AI wasn't identifying what we call an artifact or a noise as a response.

Annika

So, is any AI currently used in any of the products that you sell?

Angela

AI is used. So, prior to identifying the level of hearing loss, you have to identify with newborn babies; is there a compromise in the hearing? It's just a basic screen. So, the screen is automatic, so it tells if the baby – it puts a 35 decibel click in the baby's ear and it says yes or no. Do they hear this? Most babies? The answer is of course going to be yes. If

the answer is no, they cannot hear it, then they have to go on for further diagnostic testing. That is not automated yet.

Annika

I see. And how do you anticipate that your profession will change in the future?

Angela

Well, I guess it's not really a streamlined profession. They will always even no matter how many advances there are in artificial intelligence. I do think they will always need that human touch, that human interaction, and if anything, COVID taught me that dealing with people through a screen all day for months on end, it was absolutely nothing like dealing with them in person, and that comfort level. So, I think there will always be, plus simple things like patient setup, etc... So, I think it'll be more, I don't think it will be changed too much by AI, this particular type of position.

Annika

Yeah, for sure. Everything's changing so much. And the AI is really coming in handy.

Angela

Yeah, I'm actually gonna be looking at some stuff that they're developing at the University of Michigan, actually, that looks quite exciting. But then again, there's a long, in the medical device world there is a long time from conception to putting something on the market. I mean, it takes years. Everything has to be very clinically tested and validated.

Music

Annika

So, what's the main product that you sell? Is it the infant software screening for identifying hearing loss?

Angela

No, it would be the diagnostic system that identifies the levels of hearing loss. We'll put the sound, different frequencies, into the ear and it determines the level of hearing. When that response you're looking for the nervous system that disappears - whatever sound's being put in the ear, that's the level of hearing. For example, if you put 70 DB in the ear you get a response. OK great. You go down to 50. You don't get a response. That's a 50 DB hearing loss essentially.

Annika

Have you ever seen any software, like the infant diagnostic test, have you ever seen it being tested on any infants?

Angela

Oh yeah, a lot of times they will use a real live infant while I'm on site, whether it's for training, sometimes even for sales because if you're going to buy a product, sometimes I'll put the stuff on myself and say here, look how look how nice this looks. But if you're going to buy a product that you're going to use on infants, you may want to see proof that it will work on an infant, not a very easy, cooperative adult. So, I do get a lot of interaction with infants, which I love both for sales and for training.

Annika

And do you have any memorable patient experiences like specifically made with audiologists or the infants that you've seen take these tests?

Angela

Oh yes, I do. The one thing that just, you know, gives me the happy feeling at this job is when we have sold the system to a new user who has not been able to get results with their existing system. I've you know, we're telling them, look, our technology will work better because again, it's always noise that's the problem with getting results. So, they will have an infant that has been diagnosed with hearing loss, and it could, you know, be just the fact that there's too much noise. They bring this infant in with our system, and they are able to confirm no, there is no hearing loss. And that's just a great moment, obviously. The flip side of that, however, is a healthy newborn baby girl, 2 healthy parents. No, absolutely no reason to suspect hearing loss. They had gotten a result of hearing loss. So, they said, OK, well, when you get here, we want to bring this baby in right away. We're pretty sure that they don't actually have hearing loss. We've heard your system is really good at this. Bring her in, run the test and know it actually was hearing loss.

Annika

It's amazing that something that you're selling has that much of an ability to diagnose something that would be very prominent in someone's life. A small test is able to help them out.

Angela

Yeah, exactly. It's life changing. Well, in the moment, it's for the parents, it's just such a relief to confirm that the result was wrong, but to see the opposite of that where they thought the result was wrong and we're confirming, no, this infant does have hearing loss. That's definitely impactful, not my preference, but on that you don't forget things like that.

Annika

Yeah. And what would you say is the most challenging part of your job and how have you worked to overcome it? Or what are some things that help you get through it? I mean I'm sure as you've mentioned, when the test comes up as a child having hearing loss, it's very difficult for the families.

Angela

So that is not something I have to deal with that would be the audiologist that would have to actually have that conversation with the family. It is a little unique in my position that I get to witness these clinical tests because normally you either be the clinician or the parent, you don't usually have other people in there. But as far as challenges, I mean, I've been doing this a long time, so it's not in fact, I actually look for challenges at this point, but I could tell you doing my schedule is one of the biggest challenges. There's a lot of travel involved because of doing this stuff on site, just maintaining the schedule and fitting everybody in is actually one of the biggest challenges.

Annika

And would you say you work a nine to five or do your hours differ every day?

Angela

No, no, no. There's no nine to five. I deal with customers globally, in fact. So, on the sales side, all this stuff about the support of the training that I do for everybody, all our customers globally. So just with the nature of time zone differences. I mean, I could be doing an online training with someone that's a country, you know, China where they're 12 hours ahead. Part of my sales territory is actually New Zealand and Australia. So, when I deal with them, it's evening, my time, morning their time. So, there's definitely no nine to five, and then flights and traveling are all hours of night and day.

Annika

It sounds like it's an adventurous job. You get to meet so many cool patients and clients.

Angela

Yeah, I mean, nine to five would not work for me. It's going to the same office every day that would not work for me. So, it just kind of fits.

Annika

Yeah. And it sounds like it's a very hands-on job.

Angela

It is. It's very hands on. Even though, like I said, I have been doing it a long time, but stuff still pops up that just stumps me.

Annika

So, do you feel like you're always learning something new?

Angela

Yeah, it's, I do. Like I said something will just come up and sometimes I'm just blown away by the fact that it hasn't come up previously, yeah.

Annika

What's an example of something that you've been surprised by?

Angela

I mean we're getting pretty technical and anatomical. Both things, I have been surprised. Well, for example, I've always noticed, while cause I do a lot of tests on myself, you know, demos on myself. I've always noticed that my right-side response is better than my left, even though the hearing is equal. And then I'm at this training with this audiologist who really knows her stuff and she's telling me, yeah, that's everybody. And she's describing this anatomical reason of why the right is better response than the left. Like, I've been in this industry for 15 years and I did not know that.

Annika

Wow, so it's amazing that you can always be learning something and you're always interacting with new patients, even from all over the world, it sounds like.

Angela

Yes, most weeks I'm in the US. It's a pretty big part of our customer base. But I do go do stuff overseas. And the differences, or Central America, even the differences, for example, what's acceptable in-patient care is quite interesting.

Music

Annika

When and where do you think the next advancement will happen for hearing screening?

Angela

Screening or diagnostics?

Annika

Both. Why not both?

Angela

Like I said, I think just more and more AI being incorporated. You do have to keep up. So, the noise filtering on an ABR system, or our ABR system, it's an algorithm basically to filter out noise. It's a constant battle to make it better because as more technology is introduced in the hospitals, you know, Wi-Fi systems, bluetooth systems, as more of that is introduced, that's just more noise to throw in and interfere with that ABR. So, for our engineering team, that's a constant battle.

Annika

And what advice would you give to those interested in working with patients with hearing loss or those interested in specifically becoming a sales manager?

Angela

I guess the obvious answer for hearing loss would be look up audiology, look up audiology programs. Try to shadow someone first. Just make sure that before you spend all that money and time in school, it is something that you really want to do. And then, like I said, if you want to be a sales manager, do it clinically first, really understand it clinically from all aspects - the patient care aspect, the parent aspect, the technological aspect. And then once you've learned it really well, look at the manufacturers in your area - area meaning area clinical area, not the local area. Like I said, I do talks for grad classes sometimes, and I'll always do a survey. Say OK, show of hands. Say what are y'all thinking when you leave school? Show of hands who's pediatrics? You know, half the hands might go up. Show of hands who wants to do balance? Half the hands might go up. Show of hands, who wants to work for a manufacturer? No hands go up. So, it's really not something that, like I said, it's not a streamline process. It's not something you go to school specifically for. You go to

school for what the clinical expertise is, but then after they've been in the field for a while in a clinical setting, they might start to look at the manufacturers coming in and out and think, "that job might be pretty cool". And hopefully by then you know your stuff, and so you'll be quite useful to other clinicians.

Annika

And did you have any mentors after undergrad that you specifically looked up to, you know, that maybe motivated you to pursue this career?

Angela

Yeah. Oh, definitely. When I wanted to learn how to do the interoperative monitoring, there was no courses or anything for it. It was fairly new, which is another reason it appealed to me. So, I went down to Cincinnati, Ohio. Dr. Robert Keith, who is a name that anyone in the audiology feels in the US, who's above a certain age, let's say, will know. He is one of the founding members of triple A. He's retired now. He taught me the operating room side of it. The application side of it. And so definitely I would consider him my biggest mentor. He was also my boss.

Annika

It's so nice that you had that connection. You know it's someone --

Angela

Yeah. Yeah, it was. It was a bit of a shock as a first job right out of school cause the operating room was quite the intense environment. So, it really prepared me for pretty much anything. And then an old boss of mine worked at Vivosonic and I said, hey, come in and talk to us. I went in. This is what I've done for a while. I'm sure I could handle this. I'll just work here for a bit until I figure out what I want to do next. And 16 years later, I'm still here and I love the field of audiology. Wouldn't change it.

Annika

That's amazing. It's good that you kind of found your passion and stuck to it.

Angela

Yeah, and it probably could have been another specific part of the body or function. But a big part of it too is the people. Like I said, I've developed really close relationships with some of the end users, some of the distributors. When you talk about the rewarding part, when you take someone from either nervous, or upset, to happy and satisfied, I could tell

you I get more thank you emails than I think anyone I know. And when you're constantly getting thank you, thank you, thank you, that's the fulfilling side of it.

Annika

Feels like you're making a difference.

Angela

Yeah.

Music

Annika

OK, well, Angela, thank you so much for joining season three of our podcast, your "day in the life". It was amazing to have you!

Angela

Thank you for having me. This has been fun.

Annika

Yeah, it was amazing to hear about your side because all of the other episodes are so different. Your job sounds so niche and unique. So, it was so interesting to learn about the day in the life of a Sales Manager related to Electroneurophysiology. It's not something you hear about every day.

Angela

Yes

Music

Dr. Gordon

The Hear Here Podcast is put together by me, Karen Gordon, with my colleagues at the Hospital for Sick Children in Toronto, Canada, doctors Blake Papsin and Sharon Cushing, with a tremendous production and advisory team Sofia Olaizola, Maria Khan, May Wang, Nimrat Chani, Annika Gasee, Rachel Better and Laura Carinci. Our wonderful Hear Here Podcast music was composed and performed by Dr. Blake Papsin.

Music

