Grand Rounds By ReSound: Directionality Session 2

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My name is Valerie Kedem. I am a field training audiologist with GN Resound, located down here in what today is a very sunny Florida. As the title here indicates, this is the second round of a three part series on all things directionality at resound. Just as a quick recap, when we did the first session, we really focused on the resound philosophy on directionality. How did we get to where we are with our directionality?

Why do we do the things that we do? And then we dived into, well, gee, there's a bunch of different options within the software for directionality. They've got all these names. What do they each mean? Kind of talked about that and then did a little bit of troubleshooting as far as case studies, just to say, when would I change this and why?

Now, today's session, we are going to be focused a little bit more, or a lot more, actually, on our second program, which is called hearing noise. So these are our three learner objectives here that I will read out quickly. Number one is, after this course, participants will be able to distinguish between resound's hearing noise directionality options. Number two, after this course, participants will be able to define hear and noise smart 3d app capabilities based on hearing aid technology level. And number three, after this course, participants will be able to change hear and noise directional options based on patient feedback.

So 30 minutes goes by quickly. We're just gonna dive right in. Now, if you're familiar with the resound software, you might have noticed within the last year that program number two went from being front focus ultra focus restaurant to hear in noise. Any type of program that is derived from the hear in noise program is going to be called hear a noise program. So if you change it, it will never be restaurant, it'll never be front focus.

It'll never be ultra focus. It will always be referred to as hear and noise. Now, the reason that we changed this name and made it universal for everything throughout all levels of technology is that, quite frankly, having all of these options that we can see here, front focus ultrafocus restaurant, became a little bit confusing for both you as a provider for our patients, and what we want is for you and your patients to be able to pull up the software or pull up that smart 3d app and look at the name of the program and be like, what's the point of this program? Oh, oh, it's cool. So I can hear a noise.

I want my hear a noise program. Boom, I've got it. Now, just because everything is called hearing noise, that does not mean that it's exactly the same as you go from levels of technology or if you make changes within the software. So if you have a level nine, even though it says hear a noise, we still have front focus. If you got a level seven, it's still ultra focus.

If you got a level nine, it's still restaurant. So we do get a lot of questions about, well, what's the difference between front focus and ultrafocus? And for the sake of the conversation today, I'm going to say, not much. Now, there are. But in the background, what we're doing between front focus and ultra focus is that we really want to be able to zoom or focus in on what's right in front of us.

So, as you can see here, we have this nice narrow beam form for both the right and the left ears. And in the background, what also happens in the software, and when we pop into the software, I'll show you this, is that the gain 65 curve becomes bigger. So we increase the volume between 504,000 gain 65 curve to really draw out that speech information. And then the advanced features that are responsible for speech enhancement, like time constants and directional mix, become more aggressive. So it's doing the same thing in that manner between front focus and ultra focus.

When you go from ultra focus to front focus for seven to the nine, one of the benefits that you get from upgrading is that you have an improvement in the signal to noise ratio. But the basics are pretty much the same. Whenever we talk about what's going on in that restaurant program, where it's a restaurant program, nothing too crazy here, nothing too different. So we're going to have that bilateral beam form to really hone in on what's in front of us. Right?

Focus on the front, cut out what's in back, and then we're going to cut the lows and boost the highs, like a traditional restaurant or noise program would do.

Now, in addition to front focus and ultra focus, when you look in the software, you also see this. If you look at the directionality box in the software, you could have all of these options, right? Autoscope, adaptive directionality. Multiscope adaptive directionality. Adaptive fixed directionality.

What does all this mean? It's a lot of different words that kind of are the same. We're a little bit different, and sometimes it gets a little bit gobbledygook in our

heads as to what is what. I will clue you in the first word, like auto multi adaptive. That is kind of giving us a hint as to what's actually happening happening with each of these directionality options, and this is all in program number two.

If you have program number one, then you have a whole different set of directionality options. So let's start from the beginning, and you'll see as we go through this, it builds upon each option. So fixed directionality is going to be our most basic directional microphone option. So this is going to be that medium bam, bandwidth. It never changes, and it's just going to be right out here in front of the patient all day long.

Nothing's happening. Super basic, super simple. Some patients prefer this over any type of automated functionality. Now, when you go to the next level, then we enter the word of adaptive directionality. Adaptive directionality is very, very similar to what you get with fixed directionality, but it's just a little bit more sophisticated.

So it's still gonna be that fixed medium bandwidth. So it's never gonna change, it's never gonna get bigger or smaller, but the hearing aids gonna be paying attention to the background noise, and it's gonna start trying to block out as much background noise as possible. So while the band width might be fixed, it might shift a little bit to the right or a little bit to the left, depending on what's going on behind the patient as far as background noise is concerned. So that's what the word adaptive is meaning that it's kind of adapting to the environment in real time so the patient has a better chance of getting what they want to hear and not having to listen to all that background noise. When we go to the next option, and this is going to start popping up in your technology level, that level seven, then you start seeing these words of multi scope adaptive directionality.

So multi is kind of the clue. And with the multi scope directionality option, what this allows you to do gives your patient is the ability to choose in the software for the hearing aid between a narrow beam form or a medium beam form or wide beam form. Now it's fixed, it never changes. So whatever you choose, that's where it stays until you go and make another change. But you have the ability for everybody not always having to be in that medium standard beam form.

So, for instance, some people really just like to only hear what's directly in front of them. They don't care if there's four people sitting in front of them. They really just want to focus in on the person right there in front of them all the time. That's when you might change multi scope to maybe narrow. Or perhaps people just feel like they're missing out whenever they're in a restaurant, they kind of want to hear a little bit more around them.

They're okay with having a little bit more background noise. And then that might be where you go from medium to wide, but this just gives a little bit more flexibility for your patients whenever they're wearing these hearings. Now, when you go up into the level nine, then you start seeing the words autoscope, adaptive directionality. So, autoscope, again, that word auto is going to kind of clue us in as to what's going on here. But now what the hearing aid is going to do is that it's automatically going to be cruising through a narrow beam form, a medium beam form, or wide beam form based on speech and noise and the environment.

Now, for those of us who like the nitty gritty details behind all of this, your materials has a really, really nice document in there. It's a white paper, and it lays out every single option of directionality, from 360 all around to honest scope directionality, and really does a nice, deep dive into what is going on behind the scenes. So I highly encourage you to read it. When I read it, I was like, oh, I've been looking for you for eight years. So it's new, and we're really excited to have it.

So I hope that you find it to be beneficial as you want to learn a little bit more about what's going on with each of these directionalities. Also, some of us like to know the actual degree of these beam forms. So this is going to be a monorail fit versus a binaural fit. And so narrow is 50 for monarch, 84, binaural medium, 7120. And then, as you can see here, wide is 90 degrees versus 180 degrees.

So pretty big, pretty big differences between the narrow and the wide. So definitely should see some differences as the patient cruises through their day to day, especially if they have that otoscope adaptive directionality, they really shouldn't be missing out on too much.

So what does this actually look like in this software? So, here's some screenshots of my software for the level five. So, for a restaurant program in the level five, the default for directionality is going to be adaptive. So, still that fixed directionality, that medium beam form, that never gets wider or more narrow, but it'll kind of follow the background noise to cut it out. So it's adapting to the environment.

Some people prefer the fix, which is perfectly fine. So that could be another option that the patient has under this directionality tab in their hearing noise program. When I pop up to the level seven, it says, hear a noise, but when I click on directionality, I find that the default ultra focus. So, again, that's going to be that narrow beam form, really aggressive, nice boost in the mids. Advanced features for speech become more aggressive.

However, some people might like having ultra focus, but maybe they want to have a wide beam. So you could either change it to multi scope adaptive directionality in the software, or you could maybe add a second hear a noise program and go to multiscope and make it wide. I'll show you this in real time in the software here, too, but just wanted to make sure you could see the differences between the levels of five and seven and nine. And then when we have our level nine, we, again, we're going to be defaulting to this front focus here. But maybe the patient likes that autoscope adaptive directionality.

Maybe they've had that in the past. That's what feels more familiar. So you can again change it to this to be just the default, or you can add a second program, so you could have both autoscope adaptive directionality or the front focus.

So here are noise, front focus. These are all the options that you have in hearing noise when you do the dropdown, when you click on that little care. So we have the Omni and the fixed soft switching autoscope spatial sense and front focus. As I mentioned before, front focus. I know it's front focus because it is bolded.

And when I click on autoscope adaptive directionality, we can see that this is changed. And then also, I have access to the autoscope. And when I click on the autoscope, I want to make it fixed. I'm more than able to do that. Maybe the patient's like.

I really just. It feels like it's moving too much. Okay, that's fine. That's not a complaint we hear very often. But, you know, from time to time, there are those outliers that pop up.

Then we can maybe go to medium or maybe wide, but probably I would go to medium.

So when we're talking about some changes within the app and the software, I'm going to put this back into front focus and within the smart 3d app. In previous generations, and we didn't just have strictly front focus, patients had the option to change the beamform. We called it speech focus. And we also had this option under the quick buttons called here. Everyone, don't worry, I have slides.

I will show you what I'm talking about within the smart three app. But just to kind of set the scene here, with the advent of front focus, those two options go away in the app unless you change the directionality. So if the patient really likes the idea of being able to make that beam form wider or more narrow or loves that hear everyone quick button. The way to have access to it again is to do one of two things. First is you can either change the directionality just in program number two, or you could add a second hearing noise program.

See, it's so called hearing noise and change the directionality to autoscope adaptive directionality. And then what happens on the app is that you get all the stuff that the patient is used to seeing when they have a premium product, and that's going to be that level nine.

If the patient's like, well, I don't really want to have to hear noise programs like, that's really confusing. A way that you can address that is to come over here to tools, go to manage program names, and then change it. So maybe we're going to name our second hearing noise program or program number three more probably be a different name than this. But for today, we'll call it more and hit save. Now, on the app, you'll see more, just like we have it over here.

And the software, it's still going to be hearing noise. So this will never, ever change. Try not to make yourselves crazy. This is how it is, no matter what. Now, what this does for the smart 3d app.

And so I am going to go back to my PowerPoint and go to my current slide here. Hopefully, everybody can see my slideshow.

What will happen now is that if I don't change anything in my directionality, this is what the patient gets on my screen here. I'm going to have my quick buttons, which are noise filter and speech clarity. This is for front focus. And when I click on sound enhancer, then what's going to happen is that I only have noise reduction.

If I go into the software like we just did, and I change it to autoscope adaptive directionality, then what happens is that we get here, everyone. Yay. If I click on sound enhancer, then I have not just noise reduction, but I also have access to my speech focus, which is the beam width, and also wind noise reduction. So those are the differences. And some patients really enjoy the hear everyone.

So if they need it, this is how you do it. Also, if you have a Monroe fit and or cross, which is kind of the same, but not, this is what the default settings will be within the software. And this is also what the patient is going to see on the smart 3d app. So if you have a husband and a wife team. Patient number one has binaural hearing aids, like normal.

Patient number two has a cross device.

This is what patient number one with the binaural hearing aids is going to see on their app, unless you change something. And this is what patient number two with the cross is going to see on their app. Also, just to differentiate between the five and the seven and the nine. If you have a level five or seven, you get the quick buttons, noise filter, speech clarity, or even hear everyone. And when you click on sound enhancers, you have the bass in the middle and the treble.

The thing that you do not have with fives and sevens is going to be the actual sound enhancers at the bottom. When you have a level nine, that is when you get the noise reduction, speech focus, wind, noise reduction. That is the additional options that you have for that premium product. You get everything that we're looking at here for the nine, and then you don't have these whenever you have the five and the seven.

So I hope that makes sense, and I am sorry that there is a little delay there with the screen for the software. So let's put this into practical applications, and hopefully you can think of patients, too, that might benefit from having a little bit better awareness about what's going on in hearing noise and making some changes between the different directionality options. And then let's just put it together here right now. Okay, so this goes back to what we were just talking about. This patient has worn hearing aids and resound hearing aids for quite some time, and she just remembers the app looking a little bit different.

It's just, she feels like something is missing. Speech focus in here, everyone. So if this is happening, what would we do for our patient? How would we fix this for our patient?

And the answer is going to be all about the smart bit software. You're going to go to the hearer noise program or add another hearing noise program, and you're going to change the directionality to autoscope adaptive directionality. And then the two options that the patient's missing are going to be present and available for that patient.

Now, the second case history is this patient really just likes to have a fixed beam width, but she prefers it to be wide. So how would we make that happen for our patient? Or maybe she prefers it to be narrow. So it could be any of those scenarios. So how I would do it is, again, I would go into that smart fit software, I would find my hear a noise program, and I'm going to change the adaptive directionality, whether that's autoscope or multiscope to widen or narrow, remembering that autoscope is in a level nine, so those changes between the beam widths are happening automatically.

And multi scope is what you start seeing in level seven, and it's fixed, but you have the option to have a different beam width. So those are two ways that you could help address some of those issues for the patient.

And the last thing I want to show everybody here, before we take some questions, if there are any, is don't forget that in the software we have a lot of helper routers, so I call them cheat sheets. If I go up here to help and I cruise to feature demonstrations, this is going to be specific to the hearing aid that you have pulled up. And so this is going to give us a lot of information with little

videos about what is happening, what these different features are doing. So if I want a little bit more information on front focus, I can click on show more. And so it's going to have this blurb here.

And if I hit play, all of these features have videos. Don't knock yourself out trying to make this muted or unmuted. They don't have any audio, but they all have video. So I think of this like a whole foods, like a fancy Whole foods with a big food court, too. This would be a really great spot for front focus.

So this is what's going on with front focus.

So as you become more familiar with the software or you remember something about this feature, but not exactly a nice way to have some of that information, is going to be under help. Feature demonstrations. And those videos seem to help just make everything a little bit more clear.

Also, whenever we're talking about what's the difference between program number one versus hearing noise, when we have front focus, take a look here at our gain 65. So notice where we have our values. We have five, eight and eight for our gain 65 curve. When I go to hear a noise and I get that front focus, hopefully you can see that visually it might gain 65 curve. You get a boost up right here in the mids.

And so we have five, nine and eleven. When I take a look at my advanced features again, I'm going to click back to all around here, my directional mix is low, my time constants are syllabic. When I click on hear a noise, directional mix becomes high, and my time constants actually go to slow. So those are the changes that are happening in the background here.

So we are about three minutes out of 30 minutes. Like I said, 30 minutes tends to go by pretty quickly. I definitely want to make sure that I answer any questions that might be out there. If you do have any questions beyond what we're talking about today, please don't forget that we have a plethora of resources for you. You have our customer care number.

We have all the people who are outside the territory. Sales managers, the field training audiologists. We have inside reps. We have remote training audiology.

So we really want to make sure that you have lots of options to get that information that you need.

Please do not hesitate to reach out to anybody. We're more than happy to help out as much as we can. So I'm just going to click over here and see if there are any questions, and it doesn't look like there are.

And so with that, I will bid everybody adieu. I hope that you feel a little bit more comfortable with what's going on with the software and the app and our hearing noise program, and also what all those words mean between front focus and ultra focus and adaptive directionality and autoscope and so forth and so on. Thank you so much for attending. Please do not forget to take your five question quiz so you can get that 30 minutes of CEU. And I hope everybody has a great rest of your day.

Thank you.