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Signia Delivers Directionality and Rechargeability in All Form Factors

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You.

Hello and thank you for joining our course. Signia delivers directionality and rechargeability in all form factors here on Audiology Online. My name is Lisa Perhacs and I am the Senior Clinical Development Manager at wsa. Before we start, we're going to talk about the webinar FAQs. If you would like to get the handout for today's course, the resources are in the classroom and also under Pending Courses courses in your account.

If you'd like to earn continuing education after the webinar, go to your pending courses and pass the multiple choice exam. Remember, you must have a paid membership in order to earn continuing education. If you need assistance or technical support during this course, you can call 800-753-2160 or you can email at customerserviceaudiologyonline.com when we finish with the course, you will be able to discuss the capabilities and benefits of the Integrated Experience platform. You'll be able to list the new Integrated Experience additions and features and you will be able to describe binaural 1 mic directionality and the benefit to the wearer. On this screen you'll see the risks and benefits for today's course.

You'll find these in the handout section. If you'd like to read through them, you can. You'll also find the handout there for today's course. Feel free to download all so let's begin and talk about how we're expanding IX and enabling more people to unleash the power of conversation. This is the mission, and this has always been Signia's mission.

We believe in the power of hearing enhancement to improve lives and not just listen, but contribute to life's wonderful moments. But how are we doing this? Well, at Signia, we're on a mission to reach more people than ever before with advanced hearing care, either through unique designs or the latest technology. We're also on a mission to expand access no matter the level of hearing loss, as well as expand access no matter the personal preference. We want to meet the people where they are.

We want to give the end user what they want, to reduce their pushback and to give them access to that advanced care that will transform their lives and truly have better hearing. How do we do that? Well, first we got to figure out what is it that the wearer wants. Luckily, this is a really easy one to figure out because they have been telling us we know what the end user consistently asks for and the data backs it up. According To Market Track 2020, the top features driving both benefit and satisfaction Are hearing well in noise and rechargeability.

And research has showed us that the appearance and stigma are major barriers to hearing aids. So we know that discretion isn't just nice to have. It's a key enabler to acceptance. If we could deliver all three small, tiny, discreet, rechargeable and hearing aids that help better to hear in noise, we can remove one of the biggest barriers in hearing aid use and massively increase the chances for success. But, you know, there was always some sort of give and take.

And in our industry, it was always, always known that you couldn't always have it all. As hearing care providers, we've seen the pattern. The more discrete the device, the more you have to compromise. And this is the way it's always been in the past. Directionality usually is a bigger instrument because it requires two microphones.

But size constraints often force us to settle for just one microphone. So now the end user has to choose. Do they want small and tiny, or do they want to hear better in noise? And that choice doesn't end there. The patient also would have to choose small and tiny or the convenience of rechargeability.

Because in the past, the space the battery needs, making the device larger if it was rechargeable, often pushed back on that small, tiny, discrete desire. So the end user usually went to traditional batteries in order to have small and tiny or a little bit bigger in order to have rechargeable.

But we at Signia says that doesn't have to be the case. You don't have to compromise. We have found a way to really encompass all, and this is something we've been doing for quite a few years now. So let's tell you about our newest introduction into the IX family. And this is the insio charge and go ixcic, the world's first rechargeable custom cic with directional speech enhancement in noise.

That's right. This is the world's first.

So let's talk about what makes it so unique. With insio charge and go ixcic, you've got a discrete customized fit. You have rechargeability, and most critically, you have five times the speech enhancement in noise with the power of binaural 1 mic directionality. So in actuality, you could have it all. A discrete form factor, fully rechargeable, and the speech clarity that you could depend on.

So let's take a closer look into that incio IX CIC that is rechargeable. It is super small, nearly invisible, and if that face plate looks familiar to you, it should. It's built upon the silk faceplate. So it is small, it is tiny, it is custom made. You're going to have a personalized discreet fit and know that it's going to be as invisible as possible.

You're going to get a long battery life on a single charge. We have a brand new portable charging case and what the end user has is the ability to be more empowered to have better hearing and still have the discreetness that they desire. So let's talk about what we have as far as rechargeability. We truly have all day power, 35 hours of runtime on a single charge. And although the instrument does not have Bluetooth, it does have wireless E2E with using near field magnetic induction for true binaural bandwidth integration of sound.

Not only are you getting that 35 hours on a single charge, you have a quick charge option of 30 minutes of charge will result in nine more hours of runtime. So you truly can get almost two full days on a single charge. This pocket sized charger is also new, it's portable and it can charge up the hearing aids three

more times without being plugged into the wall.

We have a wide range of amplification needs that the Incio IXCIC charge and go is able to fit. We have three different matrices. You have your 50 peak gain, your 55 peak gain and your 60 peak gain capability. Meaning with the Incio Charge and Go IXC IC you can fit more people even if they have more challenging of a hearing loss.

And you know you're going to get reliability and robustness because with the NCO charging Oixcic you've got your IP6 rate 8 rating. And as you know the ingress protection rating 6 is the highest for dust, 8 is the highest for water. So you can be rest assured that your Insio Charge and Go IXC ICS are going to withstand whatever you can throw at it in a normal typical day and still have the ability to keep on running.

We have three beautiful colors available and three performance levels where the NCO charge and go IXC IC. It's available in a 7ix, a 5ix and a 3ix, as well as the three colors pictured here, black, dark brown and mocha. The faceplate will match the shell unless otherwise indicated.

And for programming we're using the Connects Air so that way you still have your wireless programming. With your Inseo Charge and Go ixcic, you have accessories available as well. If you would like, you could connect to the Signia app and make adjustments to volume to programs, all using the SM smartphone. And to connect to the Signia app, you're using the acoustic pairing, you're using sound. Same with the Mini Pocket.

Mini Pocket remote control can change programs, change volume, tiny little remote control that can fit in a pocket. But again it's using coded high frequency sound to make adjustments to the programs, to the volume control.

And you have cross compatibility. So even on a custom cic, you can use your Cross Silk Charge and Go IX transmitter. It's going that the Silk Cross transmitter will last 28 hours on a single charge. And what's exciting is because the NCO Charge and Go IXC IC is built off the silk faceplate that the CROs Silk Charging O IX will fit into the same charger. So here we have pictured the new Inseo Charge and Go IXC charger.

You can charge both the Cross Silk and the Inseo Charge and Go IXC in the same new charger. No need for two separate chargers.

So this is the newest addition to the Signia ixcic family. Introducing now our Inseo Charge and Go ixc. It's rechargeable, it's custom, it has the ability to have that great sound clarity as well as your NCO IX IIC CIC also built on that IX platform for the best sound clarity. It's small, it's tiny. This one uses a battery though.

And if you want rechargeable and instant fit as well as small and tiny, then Silk Charge and Go IX is for you. So we have three now CICs in the IX family. And what's so exciting is that every single one of them offers the unique benefit of binaural 1 mic directionality 2.0 all one microphone. Hearing aids on the IX platform offer the end user the unique benefit of binaural 1 mic directionality 2.0 if fit as a pair. Now let's talk about that binaural one mic directionality and how it works.

This is a unique binaural beamforming approach that only Signia can do. We're using the E2E Wireless 4.0, our near field magnetic induction integration of sound, keeping both the ears in sync. This E2E wireless 4.0 is used to share data between the two hearing aids. So the right goes to the left, the left goes to the right. This enables each hearing aid to use the combined analysis to create a binaural beamformer.

So think about it. There's one microphone on each ear, but the right goes to the left and the left goes to the right. So combining what's in each ear and the information from the other side. This is what forms a virtual form mic array around the head, giving us this binaural beamformer. This is so important because typically with directionality, the only way to achieve it is with two microphones.

Now here's a picture of a BTE RIC would be the same custom product would have two microphone ports and there has to be a space between them. These microphones are spatially separated, so that way the hearing aid can compare what each microphone hears. Directionality is built or functions based on timing. It's the timing of the sound that comes into the first microphone port versus the timing of the same sound that comes into the second microphone port. There has to be a distance between those microphone ports.

That's what gives the difference in the timing, letting the hearing aid know exactly where speech is coming from, exactly where directionality needs to be employed. This focus again is only done if you have two microphone ports and the space between each of those microphones. With the cic it's too tiny, the face plate's too small. There's no room for two microphone ports. On a CIC you can only have or an IIC you can only have one microphone port.

On the face plate, there is just no room. So this is why, because you don't have that spatial separation between the microphone ports because there's no room. A traditional single mic device cannot deliver directionality. And that has always been the case. And that's why until now there's been a trade off.

You can either have small, tiny and discrete or you can have directionality, but you can't have both. Now, I say now because Signia has been doing this for a while, but we really want to show you exactly what that binaural 1 mic directionality is gives as far as benefit for that end user. Thanks to Signia's ultra wide bandwidth binaural communication, which is our ETE Wireless 4.0, we have the ability to develop a unique signal processing technology that combines data from the microphone on each

hearing aid. For analysis, we could compare the timing and the intensity differences in the sound arriving to the microphone on each hearing aid to create a directional beam which augments target speech from the front while reducing the competing sounds.

With binaural 1 mic directionality 2.0, both hearing aids work together as a team, wirelessly sharing information to determine where speech and important sounds are coming from. This cooperation allows the hearing aids to focus on voices in front of the wearer while reducing distracting background noise, even in noisy environments. The result, the wearer gets all the benefit of advanced directionality for clearer conversation without sacrificing the tiny, comfortable and discreet fit that they want. When the patient chooses a cic, they're not just picking a small device, they're choosing to stay discreet. They want to feel the comfortable in the conversation.

They don't want to draw attention to their hearing loss. They want to be able to answer appropriately. Binaural 1 mic directionality 2.0 helps them do just that by enhancing the speech understanding and noise. It helps them stay engaged and in control, even in noisy settings. And when they can hear the conversation, they feel more at ease, more confident, more themselves.

Signia cics give the end user the not only the discretion that comes from size, but from the confidence of the powerful intelligence inside. Only Signia can offer this invisibly powerful discrete enhancement and really give the CIC wearer exactly what they want. It's perfect for those seeking a near invisible solution that doesn't compromise on hearing performance.

Now, we talked about binaural 1 mic directionality. To truly validate the binaural 1 mic directionality 2.0, we conducted a rigorous technical comparison against every major CIC competitor on the market. We used a Kemar mannequin. We used a controlled test environment. We put speech in the front, noise in the back, so that way we can replicate your standard typical directional performance setup.

But I tell you, the results are striking. And this is what we found. While all four competitors follow the natural unaided ear response, and those are the black lines on the bottom, you'll see all four line up on top of each other. They all offered no measurable directional benefit. Their response, their ear response is what we're looking at here.

Frequencies along the bottom, the directional benefit on the side we see the peak in the high frequencies. That's your natural resonance that you have just by having a pinna, your pinna effect. And you'll see all four of those cics follow the exact same pattern, that they only have directional benefit from the pinna, not from the actual instru. Signia is the red line. Signia's binaural 1 mic directionality 2.0 delivers clear and consistent directional advantage across all the frequencies.

We actually had as much as 9dB signal to noise ratio improvement over everybody else. What that equates to is five times the speech enhancement in noise. Here you can really see the difference and the directional benefit of the NCO charge and go ixcic, the silk cic, the Incio IXC IC that uses a battery. All three of them can give this great benefit compared to the standard one mic omnidirectional response of everybody else. It's not just a technical win, it translates into real life impact.

So what we have here is the invisibly powerful Inseo Charge and Go IXC IC that we're introducing joining our CIC IX family. It's discreet, it's tiny, it's comfortable, it's going to give you a full day of battery life. With rechargeability, the end user has the confidence in how they look and they also have control over how they hear. Because with Signia cics you have five times the speech enhancement in noise compared to the key competitors. This is groundbreaking.

This is uniquely available insignia with the one microphone devices and the world's only rechargeable custom CIC is the NCO Charge and Go cic.

So it's what discrete hearing should be. Not just invisible, but invisibly powerful.

And we're excited about the Signia ixic family because each of the form factors complement each other. So let's start first with the NCO IX IIC CIC Small and tiny. We came out with this one first in the IX family. Small and tiny battery driven IX technology. So you know you're going to have that great sound quality binaural 1 mic directionality and different strengths.

You can get it in a 50, a 55 or a 60 peak gain. But some people did not want to have a battery driven instrument. They wanted to have rechargeable. So now they have the option they don't have to give up with the IX offers. With binaural 1 mic directionality, they don't have to give up small and tiny, they have the rechargeability and they have the power.

They need the 50 peak gain, the 55, the 60 peak gain. So the only difference between the Incio IX IICCIC and the NCO charge and go IXC IC is that one it has batteries and one is rechargeable. So you don't have to compromise and really personalize the fit to exactly what the end user wants. So let's look at this in another direction. Let's look at the people who wanted rechargeability.

They love the Silk. It's rechargeable. On the IX platform they have the 1 mic directionality, but maybe they outgrew it because the silk is a 50p gain. Maybe they wanted to stay in rechargeable, maybe they wanted to stay in small and tiny. Maybe they wanted still to have one mic directionality.

But unfortunately it wasn't an option. Now it is. Now we have the NCO charging Go IXC ic. So for that person who wants rechargeable, wants to have the directionality, wants to stay small and tiny and not go up to a ric, they have the option of getting a stronger matrix and doing a 50, a 55 or a 60 peak gain with the NCO charge and go ixic.

So what we have here also on the ixic family is the silk. And I want to take a little moment to talk about it because instant fit seemed to be a hot topic. Again, we were the first ones to come out with an instant

Fit cic. And we know that we have the benchmark in instant fit in discrete enhancement. And also we're the only ones that have that one mic directionality.

So with the Silk cic, you have rechargeability, the only ready to wear rechargeable cic. With directional, you don't have to compromise on size and performance. And we've proven in the lab and in millions of fittings worldwide, because this is our fourth generation of silk, we know that we have a comfortable fit. And with the Silk Charge and Go ix, the only thing that changes is, is your hearing and it makes it better. One of the key insights of the Silk Charge and Go IXC is the fit.

It's comfortable. It matters. If a hearing aid is not comfortable or secure, it's never going to be off your mind, it's always going to be a nuisance. And honestly, you won't wear it. So it doesn't matter what the CIC has to offer.

If it's not comfortable, it won't be worn. You need a secure fit and we get that with the soft click sleeves that we've developed in our Earwear 3.0 that we developed specifically for the silk, offering a snug, secure fit that virtually disappears in the ear. We have a front facing vent to keep the air flowing naturally, and it also minimizes that plugged ear feeling while maintaining a stable, clear acoustics throughout the day. All of these details work together to deliver comfort so natural and comfortable that the end user can simply forget that they're wearing the hearing aids and just enjoy brilliant hearing. In fact, nine out of ten real wearers say they're satisfied with the comfort of their Silk Charge and Go ix.

If you look at the form of other products that are on the market, you can see the Silk Charge and Go IXC IC is a much smaller fit, a tapered fit. And as I said, this is our fourth generation of silk. So we know that with the design we're able to fit more people in a comfortable fit. As we said before, if it's, it's not comfortable, they're not going to wear it. So that's what we always strove with all of our CICs to make them comfortable and have the best sound possible.

We offer now a full ixcic family. So we have the Inceo Charge and Go ixcic Rechargeable Custom nco, IX iic, CIC battery driven custom and we have the Silk Charge and Go IX Instant Fit Rechargeable, all having the best sound quality built on the IX platform and offering binaural 1 mic directionality.

What we also have to offer is we're expanding our IX essentials on this launch and we're enabling more people to unleash the power of conversation in each of these platforms. So what we have available is the Pure Charge and Go BCTIX in performance levels 2ix and 1ix. And just as a reminder of what BCTIX has to offer is this is our Bluetooth Classic instrument that provides universal connectivity to 99% of all electronics out there. And it's now available in a 7ix, in a 5ix, in a 3ix and if needed the 2ix and the 1ix, as well as the S demos and the CROs. No matter what level of technology you get, you have a built in T coil, you have the Bluetooth Classic capabilities, you have a long battery life and an LED light, the serial number viewing window, as well as easy on the go charging options.

And you have the power of IX technology.

With the bctix you have the industry leading longest battery life on any Bluetooth Classic on the market you're going to get 36 hours of runtime, which includes five hours of streaming. And just as an aside, as you know, standard, typically most people will stream about two hours a day. So five hours of streaming is well beyond what a typical streaming day would be. So you know they're going to have full battery life and still be able to stream. Bluetooth Classic does drain a lot of battery, which is why we made sure that we had that long battery life.

And if you were not streaming, you would have 54 hours of runtime. So you know you'll get a full life on that single hearing aid capability. What I want to point out as well is that you would have still 80% of the battery capacity after three years of normal use. So even after three years of normal use and streaming, that battery still will have 80% of its capacity, which is groundbreaking and gives that end user the confidence to know that rechargeability is not temporary. You have the ability to do a quick

charge and get six more hours of runtime just by putting it in the charger for 30 minutes.

So this is exciting. You know, with BCTIX, doesn't matter what level of technology, you're going to get that full day of battery life, even with Bluetooth Classic.

BCTIX is also the smallest hearing aid with Bluetooth Classic available today. And I'll show you, I'm going to play a little animation for you. It's going to start at what other Bluetooth Classic size would be, and then it'll shrink to what BCTIX has. And you can see it's truly a difference. This is the smallest Bluetooth Classic on the market today.

And no matter what level of technology you get with BCTIX, you have all 10 colors available to you. So whether you get the 7ix, the 5ix, the 3ix, the 2ix, or the 1ix, you have all the colors. And if you get an S demo, you're able to demonstrate all levels of technology. Seven, five, three, two in one.

So with bctix, we have full capability, full platform, and we have CROs options. So BCTIX has a CROs pure charge and go BCTIX. So again, no matter the level of technology, 7, 5, 3, 2 and 1, you have a CROs counterpart. The CROs transmitter is going to provide up to 62 hours of runtime on a single charge, which is groundbreaking. Now, I want to talk a bit about the cross and what the cross has to offer.

And if we look at the pictures on the right hand side of the screen, this is going to demonstrate our skewed directionality on the top right hand corner picture. What you're looking at is a traditional cross transmitter in noise doing a frontal focus. And that would be fine except for a cross wearer who is striving to get the most input on that side, that quote unquote, dead ear, unaidable ear. They feel when it does a frontal focus that the cross has shut off a noise. They lose their localization, they lose the ability to tell where the sound is coming from.

So what we've done is we do skew directionality, which is our bottom right hand corner picture. And let's say the transmitter is on the right ear of the wearer. So rather than do a frontal focus, it's going to do the dark orange focus on the front, but also widen that focus, skew it have information coming in from that right side. So the wearer in noise still has better hearing, has directionality, but they'll still get the localization of the speech coming from that side, that transmitter side, the lighter orange will be the good ear working together. And what you see here in noise is that the end user will have the best benefit by having skewed directionality.

They're still hearing better in noise, but they still get the localization that they crave. This is what makes our crosses truly stand out.

What's exciting is it doesn't matter what level of technology 7, 5, 3, 2 or 1, you're still able to use all of the Earwear 3.0. So you have all four receivers available to you, which would be your S receiver, your M receiver, your P receiver, and your HP receiver, fitting up to severe to profound. And with the Earware 3.0, you can use all the tips and the sleeves that are available, no matter what level of technology. I do want to point out the chargers for the pure bctix. You have all the chargers available to you, whether it's the pure charger, which is your tabletop charger, your pure portable charger, which can charge up the hearing aids four more times on the go and hold a charge.

You have the pure dry and clean charger, which can dry out the hearing aids, disinfect and charge them. It's a tabletop charger, all of them. All the charges that we've discussed are options because the Multi charger is what comes standard with your Essential line. So with your 2ix and your 1ix is what is the default, is your Multi charger. And you certainly can upgrade and get one of the other chargers too as well.

With the bctix, you have many different accessories available to you. Again, bctix is using Bluetooth Classic, so you're able to use the TV sound and your mini Pocket remote control, as well as your Signia

app and using our Live Deep Neural Network AI Signia Assistant, all available using the bctix, no matter what level of technology.

We are also introducing now the Motion charge and go IXBTE's in the essential line, which is your twos and your ones. The Motion BTE Charge and Go family is our most adaptable family. Many people have asked for BTEs on the most recent platform and we have delivered and have now released five different technology levels. This is going to bring convenience and empowerment to everyone, giving them the option of having the most recent technology, having rechargeability, having the IX platform and having all of the benefits on the new easy to use design. What's exciting about the Motion Charge and Go IX BTES is that there are three different models that are available as well.

So this is going to bring together inclusivity, innovation, and empowerment. So that way everyone together can truly have that power of conversation. So let's talk about the three different models that are available. We have the Motion Charge and Go Mix, the mild to moderate, small and tiny. It's actually about the same size as the ric, but you're going to get a full day as well of battery life, 36 hours on a single charge.

And with the Motion charge you Go mix, you can use either the ear hook or the slim tubes that are available. Same with the Motion Charge and Go Pix. It's a little bit stronger, moderate to severe, in that it still again has a full day on a single charge and has the ability to use both the ear hook or the slim tubes. Our Motion Charge and Go Super Power IX fits the severe to profound. It's an 82 peak gain.

You're going to get up to 65 hours on a single charge, which includes five hours of streaming, all in this rechargeable package with the LED light with the serial number on the underbelly. So you get all these wonderful benefits all built into a BTE package.

So with the Motion Charge and Go IX btes, it's not just powerful, it's purposely designed to include more people, more comfortably. We've got the LED light just like the bctix. It's going to indicate the power on. So the LED light blinks when the hearing aid is shutting off. It's solid when the hearing aid is turning on.

And then the light goes away so it doesn't stay on. You have great color options. You have a tactile push button. You have IP68 rating on all of the instruments we talked about today. You have the ability to use the app or the remote control.

And you have a telecoil built into every single one of those BTEs, whether it is the M, the P, or the SP. And now the Motion Charge and Go IX is available in a 7ix, a 5ix, a 3ix, a 2ix, and a 1ix. We've got beautiful colors available to match hair and skin tone. But what excites me the most are our fun colors. These are available again no matter the level of technology.

So Whether you do a 7, 5, 32 or 1, you can have the galactic blue or the sporty red or the turquoise blue or the pearl pink. All are available for the Motion Charge and Go IX btes.

And just like the Pure bctix, you have the same options as well in that all of the chargers are available for the Essential line. But what comes standard is the Multi charger, the one on the far right hand end. That Multi charger will be standard with a 2ix and a 1ix, but you can certainly upgrade to the Desktop Charger for Motion or the Dry and Clean Charger for Motion. Both are available.

Motion btes on the Charge and Go IX platform all have Bluetooth capability. Again whether you use the 7, 5, 3, 2 or 1 and the Bluetooth that you're using with the Motion Charge and Go IX can be your made for iPhone, for Apple it could be the Asha capability for Android or Bluetooth LE audio for Android. All are built into the Motion Charge and Go IXBTE's. So they can all use the TV sound as a TV streamer, streamline mic as a remote or as a remote mic or as a remote control or a Bluetooth streamer, mini pocket remote control and again the Signia app with the Live Deep Neural Network Signia Assistant,

which is our Signia AI. All available regardless of the level of technology.

So as I talk about technology, I want to take a step and talk about the IX technology and what IX has to offer. Because now we're adding to our IX family and I just want to share with you a little reminder of the revolutionary speech processing. IX Real Time Conversation Enhancement has the ability to pinpoint multiple speakers. The competition. You have to look at the people who you're talking to or it's so wide that it lets speech and noise through.

With IX Real Time Conversation Enhancement you have three additional focus beams that are able to lock onto the speaker, move along with them where the listener doesn't have to turn and look at who is talking. They're able to hear the speech naturally, comfortably and keep up with that live conversation as it moves and changes around without any effort. The listener can just sit back and listen with Real Time Conversation Enhancement. It truly is groundbreaking. Real Time Conversation Enhancement is a three stage process that is happening simultaneously.

It will augment, analyze and adapt all at the same time. Real Time Conversation Enhancement is a live auditory space in which it's utilizing the split processing to separate processes from the back from separate the speech from the background sounds. Keeps you immersed in your surroundings. What it's doing is it's actually sampling 192,000 data points a second and then adapting a thousand times in second. So this is instantaneous the end, where the end user doesn't have to look and see who each person is talking.

They can sit back and just hear. They're not distracted. This is seamless. And they are able to hear these multiple speakers even if they're talking at the same time in noisy environments, which is truly the most challenging environment. And we know it works.

We've done the research. Did you know that just a 3dB increase in sound pressure level means a doubling of loudness intensity? In simple terms, every 3dB boost makes sounds twice as loud to our ears. So when we say the Signia IX platform delivers a remarkable 3.2 dB improvement in signal to noise ratio, that's a big deal. This means clearer group conversation in noisy environments.

And when I say 3.2 DB improvement, that's over all the top hearing aids that the market has to offer.

All competitor devices tend to settle within about 1dB of each other in terms of signal to noise ratio, mainly because they rely on different versions of single channel processing for both noise and speech. Signia IX stands out by independently reducing noise without distorting speech. Unlike the competitors, Signia uses split processing, which separates speech from environmental sounds to ensure that it's clear. Additionally, Signia IX adapts in real time to multiple talkers, a capability that's enhanced by the real time conversation enhancement technology, which allows multiple streams to focus and adapt dynamically to the conversation in real time time. It's this technology that powers our superior results.

So while a technical signal to noise ratio improvement provided by hearing aids is often linked to better speech understanding, real world performance can be influenced by various factors. Individual differences in hearing loss, auditory processing capabilities and attention mean that the same signal to noise ratio change can impact listeners differently. Therefore, to accurately assess speech understanding performance, hearing aids must be tested directly with human participants in realistic conditions. To investigate this, we commissioned in Germany an external human performance study comparing Signia IX with the best performing competitor from our technical study, a device that was launched in late 2024, which features an AI Co processor. Now this is probably a methodology that you've seen before, right?

Where speech comes to the front, noise comes from the back. Especially in human performance studies where noise comes from behind. Single speaker is positioned in front. This is pretty typical. The

setup effectively demonstrates directionality by narrowing the beam to cut out surrounding noise and to pump up the signal to noise ratio which grabs attention.

It's a common approach. While it's not wrong, it's not indicative of real life or good sound quality. This is why we took a different approach. These two speakers were actually had the noise but we also put the listener in a surrounded speaker system to result in a very vibrant noise floor real world situation. And we also had alternating speakers of speech in the front. So what we were able to do is we can alternate the speakers in real time continuously switching.

So that way the devices had to adapt on the fly and they weren't able to predict where the speech was coming from. From this advanced methodology truly tests the capabilities of real time conversation enhancement unlike any other device on the market. Because Signia IX can track and enhance the multiple talkers simultaneously even when they move around. So we did just that, designed a test that replicated this multiple person talker and you can see in the responses 28 individuals with hearing loss participated in the study and the results demonstrated a significant improvement in speech understanding with Signia IX. The mean speech reception threshold with Signia IX was 1.5 dB better which is lower.

Lower is better compared to the competitor. This reduction corresponds to a 24% increase in speech understanding, a substantial and highly significant improvement. It's important to note that this study served as an external validation of a previous internal study that we did. The results were remarkably consistent. The current study showed a 1.5 dB signal to noise ratio improvement which aligned with the 1.4 dB improvement we had.

Internally corresponding increases in speech understanding were 24% in this external study. So despite the differences in test room acoustics and loudspeaker configurations between the internal or the external studies, the results were the same. It replicated the previous findings. It reinforced the

robustness of the perceptual benefit provided by real time conversation enhancement. Put simply, this demonstrates that real time conversation enhancement with split processing and its ability to independently reduce the impact of surrounding noise while tracking and enhancing multiple talkers in real time is superior to single stream DNN solutions.

It excels in addressing one of the most challenging scenarios for hearing aids, dynamic group conversation and noise. With real time conversation enhancement, your patients don't have to worry about facing the speaker or struggling to keep up. They can simply follow the conversation and actively participate with ease. The benefit was observed when compared to a recently released device equipped with the AI CO processor. An impressive 86% of participants that's 24 out of the 28 perform better with Signia IX than with Brand A1, demonstrating that this isn't just a benefit for the few skewing the data that it's consistent time after time after time.

The data showed the improvements of up to 5.6 dB with most participants experiencing a benefit greater than 1 dB. In contrast, the four participants who performed better with brand A1 in the gray here on the chart achieved only marginal gains with a maximum improvement of 1.2 dB. And the others below. These findings highlight the tangible advantage of Signia IX advanced processing technology, offering the end user superior performance in noisy environments where traditional devices, often with single stream processing, just fall short. So all of the instruments here are what have on the IX platform the ability to have real time conversation enhancement.

Everything seen here is available in a seven, in a five, in a three, in a two, and in a one. But let's talk about the real time conversation enhancement, the multiple focus beams. In order to get those three additional focus beams on top of the split processing, you need to do a 7ix. 5ix will have one focus beam on top of the split processing. 3ix will have the split processing and advanced IX features.

So if you want what we have talked about, that we've shown you the results in the studies, that's all your 7ix and all of the instruments pictured here have 7ix available. They all pictured here have five levels of technology. So you can get that 7ix if you would like. They all are available as well in your essentials, your ones and your twos. So let me show you what you get.

If you get a 1 or 2 IX, it's different. You're not going to have those additional focus beams. You're not going to have real time conversation enhancement. In the essential line, this technology still has your advanced split processing. You're still using your augmented focus, but you don't have the additional focus beams or the additional IX benefits that you would find in a seven, in a five, in a three.

But along with that split processing, you do have speech stabilizer, which delivers enhancement for conversations in challenging group environments. So let's talk a little bit more about speech stabilizer because this is part of your IX technology. It's found in your sevens, in your fives, in your threes, in your twos and your ones. But this is the big part of the twos and the ones because they don't have the additional real time conversation enhancement. So with speech stabilizer, you have clearer conversation in dynamic environments due to a faster processing of the E2E wireless binaural integration, enabling a reduced latency and greater dynamic range.

This all improves the sound quality. It improves sound quality in every aspect, but also especially with the CROs, even delivering more transparency and clarity, especially in challenges environments. Speech stabilizer. Think of it as a speech boost. It preserves the natural envelope of speech in any situation, which includes noisy situations.

And it's going to preserve the acoustic cues that are important for speech. So these are another way that the IX by its faster technology is able to improve speech. So I broke down in a chart for you the differences between a 3ix, a 2ix and and a 1ix. So I want you to see if you were doing a bte, if you're doing a ric, these are the differences that you would have. Obviously you're going to get more the

higher up you go in technology, more channels, more programs.

But the big huge differences here is with the 3ix, you get real time conversation enhancement, you get OVP, own voice processing, the ability to lower the gain just when the patient talks, not for anything else. You get motion sensors with the 3ix. And what you also get is more flexibility with some of the directional and the noise reduction features. When you go down to a two and a one, you lose that. So I just wanted you to be aware of that.

They still have your IX technology, but you don't have all the features that you would have in a seven, in a five and in a three. So I just wanted to point that out as well.

So here is our entire IX family. As you can see, it is a full portfolio. If you have true directional mics like the Pure Charge and Go or Charge and Go TIX or the Pure BCTIX or the Styletto or let's say the activ or the NCO IX and a canal half shell it or the motion BTEs, all of them that I just mentioned all have true directionality, meaning two microphone ports on each hearing aid. So all of them, if you do A seven, if you do the high end technology, you are able to have split processing and three additional focus beams. If you have an instrument that only has one microphone on its face plate as opposed to two, and that would be your silk, your Incio IX iic, CIC IC and your Incio charger go ixci.

Now you have one mic directionality. So with binaural one mic directionality, you have beamforming that is unheard of in acic. It is not as advanced as the real time conversation enhancement. You need to have true directionality in order to have that. But this is a chance to have directionality in a CIC that was never capable before.

So it is so exciting of what we have to offer in our IX family. We have more offerings in IX than we've ever had before in any family. So you truly do not have to compromise you can have rechargeability for all. You can have directionality for all. You can have have the best sound quality for all.

They can have small, tiny, discrete. They can have power. They can have truly any option that they want and still get IX technology. So it's exciting that we have such a full portfolio, because now is the time to try Signia if you haven't. So we're excited that we are able to enable more people to unleash the converse, the power of conversation.

And with that, I thank you. Thank you for joining us today and for taking the time to learn more about Signia. If you're interested in learning more about our products and our software, we encourage you to search our courses on audiology online. And always be sure you can reach out to us for assistance at 1-800-766-4500. Thanks again and have a fabulous day.