Engaging Patients and Empowering Lives

Presenter: Karen Toole, AuD

Hello and welcome. Thank you all for joining me today. My name is Karen Toole and I'm the National Education and Training Specialist for oticon. I am very happy to present to you on all the updates from OTICON this spring, but before we get started, I have a few reminders to share. The learner outcomes for this course are displayed here and are available in your course handout.

Here are the risks and limitations inherent in today's course. These are also available in your course handout. At oticon, we're dedicated to supporting you and your patients, not just today, but for the long term. It's our unwavering goal to ensure that you and your patients experience seamless, high quality clinical care when you partner with us. I'm really excited to discuss with you several key topics today that I believe will further solidify this commitment.

I'd like to start by talking about Oticon Intent. How it delivers unmatched performance in a sleek, discreet design without compromises. By giving you five facts about our second generation Deep Neural Network with Oticon Intent, your patients will get the right support all day in every listening situation, and they don't need to make compromises. They deserve hearing aids that are always on, always ready and always performing.

Take this video as an example. What you see here is a typical social interaction that your patient might encounter in their everyday this could be an office party or just a gathering on a Saturday between friends. If you look at the gentleman in the striped sweater, you can see that he's interacting with multiple people in different parts of this social situation. So his communication needs are changing moment to moment, even even though the environment hasn't changed. As our DNN has evolved, our ability to effectively address the speech and noise problem also continues to evolve.

This brings me to those five facts about our DNN that support why your patients don't have to compromise when you fit them with Oticon Intent. First, our DNN is in its second generation and it outperforms our first generation dnn. While other manufacturers are just getting started with AI and their

products, we've refined and advanced our DNN to perform even better. Oticon's DNN is always on, just like life. From the moment your patient gets up and puts their hearing aids in until the moment they go to bed, Oticon Intent will give them all day support for those important moments.

And it works across all listening environments, not just those complex ones. It's on and working in any listening situation that your user will encounter. It's not microphone specific. That's right. Since we just Introduced Oticon Onsi, which I'll talk to you about later.

Today our second generation is now available in two discrete custom solutions. It's important to have RDNN in a single microphone audiology, which is significant. And finally, RDNN exists across performance levels, families and sizes, giving you the opportunity to fit a broad range of patients on the screen. Here you'll have two spectrograms. The first one is the street was very busy when processed through Oticon Real.

The second one, which I'll show you in a little bit, is the same sentence processed through Oticon Intent. The effect of the 4D sensor technology and the second generation DNN can be clearly seen when looking at the output of Oticon Intent when compared to Oticon Real. Along the bottom or the X axis you have time, along the side or the Y axis you have frequencies. The brighter the color, the more sound is present over over time. Take note of the darker spots.

These are really important because they provide the brain with temporal cues and are also important for making sense of speech. Now let me show you the spectrogram on the right. Note the contrast that's being created between speech and noise when using Oticon Intent. When you compare it to Oticon Real on the left, that contrast is visibly clear.

Much of the scientific research that informs our understanding of brain hearing, or what's known in scientific circles as cognitive hearing science, is generated by the Ericksholm Research Center. Erichs

Home Research center is an independent facility that engages in close collaboration with academic research institutions across the world. To tell you more about Ericksholm, I'd like to introduce you to two of our colleagues, Morale and James.

What if there was a hearing aid that knew you, that grew with you and already knew exactly which sounds you needed? Today I'm going to explore how genuine curiosity and open ended exploration can spark the ideas that become the life changing hearing technology of tomorrow.

Hi. Hi Morale. Welcome to Ericsson Research Centre. My name is James and I'm happy to say I'm the senior director here. Nice to meet you James.

Thank you for having me. It's an absolute pleasure. Let me just say there really is no place like Erichsholm the way that we do our science is extremely unique. We have scientists from all around the world that are actually working together to try and redefine the future of hearing healthcare, which is actually super exciting. With almost half a century of experience, Erichsholm has emerged as a world leader in applied hearing science.

Though we operate as part of Oticon, we are fully independent so that we can commit to essential long term research that results in revolutionary product innovation. We started off with a team of about five engineers back in 1976 and today we're an international team of more than 40 scientists. There's four dedicated research labs, we've got two clinics, and we have more than 300 test participants in our pool working with us.

So can you hear that? No, it's totally silent. That's exactly the point. So this really kind of special room allows us to simulate any sound environment that we like. And we use this with all four of the research areas that we have in Erichshm.

And the first of those is actually cognitive hearing signs. We know that we hear with our ears, but we actually listen with our brains. And research in Erickson tries to measure mental load on hearing impaired individuals when we change the sound environment, when it's challenging. And in essence we call that cognitive hearing signs. That sounds a little like Oticon's brain hearing philosophy, right?

Precisely. No, precisely that. But cognitive hearing signs is just one of the four research areas that we have. So we also have personalised audiology where we're learning how people actually use their hearing aids to help them solve user specific problems and give them the best technology for their individual hearing loss. With intent decoding, we're actually learning how to understand and predict natural communication behavior, like knowing when a conversation is transitioning to a new speaker to make predictive hearing devices.

And with our newest research field, artificial intelligence, or AI, we're amplifying our existing computational knowledge like signal processing and deep learning to essentially exponentially advance our hearing aid systems far beyond the current technology.

At Oticon, we strive towards a future where hearing loss is no limitation at all. That's why we put more than 7% of our revenue into pioneering scientific research leading to game changing discoveries that have redefined what hearing care technology can do. We believe that curiosity fuels innovation, which is why Oticon stands apart as the only hearing aid manufacturer with its own independent research facility dedicated to audiology. And this is where what we do and what you do really comes together, hopefully to make some serious impact in the world. Back in 2016, we took a step on a completely different path with the OpenSound paradigm, where Oticon built a device and built technology on insights that were created here in Erichsom.

Yeah, and from OpenSound we had more sound intelligence. And that was also the world's first deep neural network embedded in a hearing aid and trained to counter the number one problem for people

with hearing loss, which we know is hearing, speech and noise. And then of Course we had Oticon Intent, which was the world's first hearing aid with the user intent sensors. Exactly. And the discoveries that are being made here in erichsholm really is sort of helping Oticon to pave the way for future technology.

And it's also great that the new the research methodologies that we create here in erichsholm also have an opportunity for having real world impact. Could you give me some examples of those? Yep, absolutely. So pupillometry in audiology, a new use for EEG as an outcome measure. And you know, right now what's super exciting is we're doing a lot of pulse monitoring where we can actually try and sort of connect your hearing health with your body and listening related stress, which is offering some really exciting new insights.

Tomorrow's innovations are born from today's imagination and our shared mission to deliver life changing hearing care is what puts a better future within reach. Solving challenges for people with hearing loss in new and better ways. Empowering hearing care professionals to take their individualised care to the next level. This is what drives us our work, our hearing aids of tomorrow.

Research like this has led to an understanding that the user's most important need is to improve their speech understanding. But we also know that users don't like aggressive noise reduction. Doing so deprives them of understanding the environment that they're in. We pioneered the open sound technology that enables the user to achieve superior speech understanding while providing access to speech from all sides and other sounds in the environment. Research methods refined at Eric's home have allowed us to build upon that open sound technology and show cognitive hearing benefits such as reductions in listening effort and listening stress.

RDNN is a great example of technology that's been built to help support greater understanding of speech and noise. It's a purpose built system based on research performed at ericsholm and trained to

support our open sound philosophy. It balances the sound scene and allows us to open it up at 360 degrees. This allows hearing aids to analyze the sound scene in real time and enhance speech from all direct while still attenuating other sounds in the environment. We introduced our DNN in Oticon More.

But that DNN was built on 25 years of research with deep learning and proven results. The first DNN was trained on 12 million sound scenes recorded in the real world. And our second generation DNN which was introduced with Oticon intent, was trained with an even greater diversity of sound samples that allow it to perform even even better.

This is what has driven our journey with artificial intelligence and using a Deep Neural Network, which is the most sophisticated form of AI. We've had an onboard deep neural network in our hearing aids since 2021 when we introduced Oticon more. The DNN 1.0 was used with our new signal processing strategy, More sound intelligence. In 2024, we introduced Oticon Intent, which included our second generation DNN. And in addition to acoustic information, we added new 4D sensor technology.

Here you can see the evolution of our deep neural network starting in 2021 with DNN 1.0, Moresound Intelligence, and the introduction of Oticon More. Then the products that followed all the way up until 2024 when we introduced our DNN 2.0 and Moresound Intelligence 3.0 with Oticon Intent. And now in 2025, we're introducing Oticon own SI, which has our DNN 2.0 andMoresound Intelligence 3.0 optimized for single microphone devices.

So how does Oticon DNN work? It depends on the process of deep learning.

Deep learning has allowed us to approach the speech and noise challenge in a radically new way. Speech and other sounds are complex waveforms, but with unique patterns and structures, exactly the sort of data that deep learning is designed to analyze. In traditional signal processing, a set of rules or a series of processing steps are written ahead of time by experts, and they control how the data will be

continued

analyzed. It's a highly specialized and sophisticated part of the world of artificial intelligence. Deep neural nets, or DNNs, are the technology used to implement deep learning.

Deep learning systems are designed to cut through the large amount of data and uncover those patterns and interrelationships that are hiding in the data. It's an approach that makes the most sense when discrete rules are simply not enough. While this might sound complex, it happens naturally in our own brains. Think of how a young child learns speech and language.

When you think of how a young child learns speech and language, they're not taught the rules. Instead, they're immersed in a world of sound. And the developing brain learns to make sense of all that input. Naturally, the growing child discovers the rules, the exceptions, the relationships between words and meanings, along with all the little subtleties. Here, this child sees a small animal and says, cat.

His father corrects him and says, no, that's a dog.

The next time the toddler sees a small animal similar to a dog, his brain's new architecture comes up with the word dog. He uses it and says, doggie. And his answer is reinforced by his resounding, yes, that's a dog. From his father. This information Is also fed back into his brain's architecture.

And the network is strengthened by that feedback.

Much like that child learned the differences between dog and cat through reinforcement and repeated experiences, the DNN learns through comparisons and feedback. It learns to better recognize the patterns of speech each time the system gets closer and closer to the target sound. A deep neural network is a computing system that has an architecture modeled on the human brain. The connected units of a DNN are referred to as neurons. There's an input layer of neurons that codes the various features of stimulus provided to the brain.

The signal is then modified prior to the output layer where the signal will be reconstructed. In our case, the example of interest is speech and noise. At first, the DNN creates a map of virtual neurons and assigns random numerical values or weights to the connections between them. And then an output is provided.

The output of the DNN's processing of the speech and noise signal is mathematically compared to a clean target speech. The error between the output and the target is used to update the neural network weightings to improve the output. This process is repeated as needed until a certain acceptable level of agreement occurs between the target and speech. Once a DNN has been sufficiently trained, it can be used to accurately process new sounds that it encounters in the future.

So let's look at what the DNN is looking for to better identify the speech signal when it's embedded in noise. This is what our research focused on to develop our strategy. Here you see a spectrogram of clean speech. Speech is characterized by patterns that don't really exist in other sounds. In these unique patterns may be clear to the trained observer, but they're tricky to capture in a discrete set of rules.

That's where deep learning comes in. It's designed to recognize these sort of patterns and complex interrelationships that define natural human speech.

Other sounds in our world don't demonstrate the same complex patterns that speech does. What we asked the deep learning system to do was to learn what separated speech and other distinct sound from more diffuse noise backgrounds.

And then look into complex mixed sound environments and find the patterns of speech that are embedded in these sound scenes.

In addition to our purpose built dnn, we designed our platforms from the ground up, Making them purpose built for hearing aids. The DNN is embedded in the chip. By designing our own platforms, we can plan for what's needed and manage power consumption at the platform level as well. These decisions allow our DNN to work in real time, all the time, addressing the problems and preserve power for the user so they can have the freedom to use their hearing aids throughout the day in every listening environment.

In Oticon Intent, the ability of the DNN to support patient needs is enhanced with the inclusion of our 4D sensor technology. This technology combines four different types of sensor inputs to understand and act on the user's listening needs. The sensors prompt support based on the user's behavior so that they get the right amount of help in any given situation.

Here you can see all the Oticon product families with our always on Embedded Deep Neural Network. That journey started with OTICON Moore in 2021 and we don't believe in compromises when it comes to giving the brain what it needs to make sense of sound. We understand that the number one concern for those with hearing loss is listening and noise. We've dedicated our efforts to building these technologies and addressing that concern, from opening up the world around the hearing aid user to incorporating the latest enhancements in noise management with artificial intelligence features. Our DNN journey started with Oticon More, but it doesn't stop there.

I invite you to come along that journey with me as I introduce you to what's new.

I'm excited to talk to you today about our most recent product Family edition Oticon on si. Oticon Onsi IIC and CIC are based on our Sirius platform, including our most advanced technology optimized for single microphone hearing aids. It's designed to meet the needs of people looking for a discreet custom solution. Oticon Onsi provides the best of both worlds the discretion users want with the audiology you

know they need.

When you think about a hearing aid that's small and discreet, you might have one of your favorite patients in mind. They may be concerned about the look or feel of a behind the ear hearing aid or the compatibility with their active lifestyle. Their personal motivations and drive is what brought them through your door. They're looking to you as the hearing care professional to guide them towards the optimal solution for them. Oticon Own SI may be that solution.

It comes in our two smallest styles, Invisible in the canal and Completely in the canal. It's available in five matching faceplate and shell color options to ensure maximum discreetness. The shells are also available in clear transparent as well as red and blue transparent. If your patient needs a little more support telling right from left, Oticon Own SI is available in four performance levels. Oticon ownsi1 offers the most advanced standard of care performance available and offers you the most flexibility to optimize and personalize your patient's fitting to their individual needs and preferences.

All Oticon Own SI performance levels offer varying brain hearing technologies and level of support as well as fitting flexibility.

The IIC is the most discreet custom solution available and it's preferred by many hearing aid users regardless of experience with hearing aids. It uses a size 10 disposable zinc air battery and has two fitting levels, both 75dB and 90. This covers a wide range of hearing losses in order to keep it as small and invisible as possible. There are a few features that are not available in an iic, the NFMI antenna being the first. The second is that we don't have the ability to put a push button on the IIC due to the size of the faceplate.

Tinnitus Sound Support is also not available in an IIC because it requires both an NFMI antenna and a push button.

NFMI, or Near Field Magnetic Induction, allows for communication between the hearing aids as an option for CIC devices. It's important to keep in mind which custom styles can include NFMI because it will affect the features offered in the style that you choose. Near Field Magnetic Induction enables a continuous exchange of data and audio by between two hearing aids providing advanced binaural processing. It travels well around the head and body and has low interference with other devices because of that short transmission distance. These advantages are what make it an excellent solution for communicating in the near field.

Like between two hearing aids. Near Field Magnetic Induction enables these features that are included in our CIC devices. Spatial sound, including better ear priority and binaural compression, binaural coordination and tinnitus sound support. For regulatory reasons, NFMI and a push button are required for tinnitus sound support in custom devices. It's important for the end user to be able to control the tinnitus sound support on their hearing aid itself.

This also applies to monaural fittings.

The CIC offers a little more flexibility when you compare it to the iic. The CIC is still a discrete solution in cases where an IIC is not a good fit or if the user just needs a little more functionality. The CIC has the added bonus of an NFMI antenna allowing for binaural processing and includes features like spatial sound as well as binaural coordination of the push buttons on the two devices, which will also allow for tentative sound support in a small discreet design.

Oticon own SI has two fitting levels. It covers a wide range of hearing losses. This means the styles are relevant for the majority of users preferring a custom solution. I'd like to point out there's a slight difference between fitting bandwidth for Oticon ONSI 1 vs 2, 3 and 4 Oticon ONSI 1 has a bandwidth that starts at 80 Hz and goes all the way up to 10,000 Hz. Oticon ON SI 2, 3 and 4 start at 80 Hz but

end at 8,000 Hz.

Oticon ON Si is designed for those who have very active lifestyles, including these gentlemen here who happen to be on a long bike ride in a warm, dry climate. It has an IP68 rating for both water and dust resistance. This means that your patient's devices are reliable and can perform consistently with their active lifestyles. Please note that the hydrophobic coating mentioned on the technical Data sheet refers to a coating on the filters and not on the shell of the device.

Battery life is something that I'm sure your patients are always concerned about. Battery life is going to depend on a lot of user behavior influences by signal processing as well as the speaker level. The greater the severity of hearing loss, the higher the drain on the battery. And of course it also varies on the style because of the fact that the CIC could have an NFMI antenna, which will also affect battery life. Recently, the Proax MiniFit had a little bit of a redesign.

A new handle for the filter has been flattened and hollowed out and are now made of entirely granulated plastic scrap. This update to our Proact Mini Fit has resulted in a 53% reduction in plastic consumption, all while maintaining the same functionality for the user.

This video, which is available in the instruction video area of Genie 2, will allow you to show your patient how to easily remove and insert a new prowax Mini Fit filter in a custom product. You can find it from any screen within the software.

The TCAP protects the microphone inlet in both the IIC and CIC's dials. It's designed to prevent not only dust and dirt from entering the microphone, but it also protects against noise when your patient is placing the hearing aid in their ear. TCaps are available in all five Oticon own SI colors and are easily changed using the dedicated tool that you see here on the screen.

This video is also available in the instruction video area in Genie 2 software. To remove the old TCAP, use the forked end of the tool and then turn it over to insert the new tcap. You'll need to do so at an angle and then once it's pushed in, just twist on that tool to hold it into place.

Our brain hearing philosophy centers on providing the brain with access to all relevant sounds around the user, even in the most complex of environments because we know that the brain needs access to the full sound scene to process sound in a more natural way. With Oticon Onsi, you can offer people with hearing loss an ultra discreet solution without compromising on premium single microphone audiology. We've packed superior sound quality and proven brain hearing benefits into our smallest, most discreet sizes for single microphone custom solutions. Having an always on DNN is especially important without the benefits of a dual microphone processing. The DNN is the ultimate enabler of better speech clarity and noise suppression when listening in challenging environments.

The advanced technology drives a hearing aid that works more like the brain because it's learned through repeated experiences. This enables better and more accurate representation of sound in the brain and better access to sound all around the hearing aid user. The DNN 2.0 builds on the learning of the first generation DNN that was trained with 12 million sound scenes. For the second generation, DNN, sound samples that were more diverse in their complexity were added to the training. Most are challenging and complex so that the DNN has learned even better strategies for real world complex.

Once the training with the more diverse sound sources was completed, the sound sources were then fed into the same DNN architecture that worked so well in our first generation DNN. But in the DNN 2.0, the analysis of the output of that DNN has been performed in 256 frequency bands rather than the 24 that were used in its previous generation. This allows for any errors to be more precisely identified so that the DNN 2.0 received better feedback in its training and this resulted in a greater accuracy and better signal to noise ratio in DNN 2.0, meaning it's better at preserving the original sound and there's

less loss of cues for both speech and oticon. ONSI comes with some of our most advanced brain hearing sound processing technologies to deliver proven benefits. These optimized premium features are made possible with our powerful and most intelligent chipset ever, the Sirius platform, which was purpose built for hearing aids, complete with an embedded always on DNN 2.0 which ensures users get the support they need all day regardless of the environment.

These features include Moresound Intelligence 3.0, which delivers the full sound scene and provides clear contrast and balance for all relevant sounds. This gives a cleaner signal for the remaining part of sound processing and the next step which is Moresound amplifier. Moresound Amplifier 3.0 receives optimized sound from Moresound Intelligence 3.0 and uses that to provide precise and balanced sound amplification. In addition to that, it includes our Sudden Sound Stabilizer, which seamlessly monitors the environment and instantly adapts amplification to keep both soft and loud sudden sounds not only available but balanced and comfortable. And to wrap it all up, moresound Optimizer detects and prevents feedback proactively before it even occurs.

The goal is to provide improved access to speech details with a more natural sound, increase comfort and improve speech understanding even in the most challenging listening environments, all while providing users stable gain throughout their busy day.

This graph shows how Moresound Intelligence 3.0 is different for single microphone hearing aids. If you're familiar with Moresound Intelligence 3.0 for dual microphone hearing aids, you may notice that spatial clarity processing is absent. This is because it requires the input from two microphones. Spatial clarity processing for dual microphone hearing instruments like Oticon Intent consists of two different the Virtual Outer Ear and Spatial Balancer. Both help recreate the spatial sensation in easy and difficult environments respectively.

While this is absent in the processing scheme for single microphone hearing aids, the user can instead benefit from the Pinna for spatial awareness for Oticon, onsi, CIC and IIC with a single microphone. The three step process for more sound intelligence includes the natural spatial awareness which is offered by the pinna, the acoustic sensors neural clarity processing, including the neural noise suppression for both easy and difficult. As with dual microphone hearing instruments, these three steps are followed up by the Sound enhancer.

Now that Moresound Intelligence has cleaned up the sound signal, it's moved on to Moresound Amplifier 3.0 to provide optimal amount of dynamic gain. Within Oticon ON si, we've introduced two new features, the Sudden Sound Stabilizer and an expanded frequency bandwidth.

The Sudden Sound Stabilizer handles disruptive sounds by using instantaneous gain reductions to manage sudden sounds. This is improved over our traditional transient noise management, which operated at a slower rate, inadvertently reducing gain for important speech Sounds. Moresound Amplifier 3.0 gives users amplification over frequency ranges spanning from 80Hz all the way up to 10000Hz in own SI1. This expansion into even lower frequencies provides a fuller sound scene with a richer representation of the environment. This expanded access to sounds is especially helpful for patients who want to enjoy music because it provides a deeper bass sound when playing instruments and even when listening to live or recorded music.

Another important feature of Oticon Onsi is Moresound Optimizer for proactive feedback handling. Feedback most often occurs when sound leaks out of the ear canal and it's directed back into the microphone of the hearing aid. This is typically more likely to occur when the microphone is closer to the ear canal, which is usually the case with an IIC or a cic. Because of this, it's critical that these devices have an excellent feedback prevention system.

Moresound Optimizer has an additional strategy for preventing feedback while preserving audibility called spectrotemporal modulation. It uses 28 independent channels to constantly analyze and determine the risk of feedback when the acoustic changes are detected. It employs a targeted breaker signal in one or more of the frequency channels in this picture, it's noted here in the white square with the black lines that are vertically going across the spectrogram. As you can also see here on the screen, those black vertical lines get smaller and smaller. And this is because Moresound Optimizer is precision deployed.

It's only applied in relevant frequency bands where feedback is building up. Moresound Optimizer can handle a positive loop gain of 6 dB before gain control within the feedback shield activates. This will allow your patients protection from feedback even in situations where they're hugging a family member or taking a phone call. And FeedbackShield is one of the technologies that we use to support Moore Sound Optimizer. It uses techniques such as frequency shifting, phase inversion and gain control to prevent feedback from becoming audible and ensuring stable amplification for the user.

It's important, however, that we do not need to overuse the strategy of gain reduction as a primary means of handling feedback, and this is because this risks reducing access to important speech cues.

To document the benefits of OTICON onsi, we conducted a series of technical measurements in a true to life advanced lab setup. The purpose of this research was to determine the benefit of using a deep neural network 2.0 in comparison to the deep neural network 1.0 that Oticon own was introduced with. The evaluation was performed using a head and torso simulator like you see here on the screen. The hats wore OTICON OWN and OTICON Own SI hearing aids under the exact same test conditions. Oticon own and Oticon1si were both programmed with gain at a moderate loss and based on NAL NL2 rationale, which is a typical lab setup.

The test setup which is depicted here on the screen is available in the OTICON OWN SI research brief. If you'd like more information on the research brief, please see your OTICON account manager and they can provide you with a copy of the study. The first study was performed to compare Oticon 1si with DNN 2.0 and Suddensound stabilizer to Oticon own with the first generation DNN and transient noise management. The results indicated OTICON OWN SI provided a greater signal to noise ratio enhancement across all listening situations. In the moderately complex situation with speech coming from the front, There was a 2.7dB higher SNR in one SI compared to Oticon own.

The overall improvement of ONSI compared to no hearing aid at all was 5.4 dB.

The second study was used to investigate the effects of just the DNN 2.0 in Oticon ONSI in comparison to the first generation in Oticon 1. This study looked at speech not only from the front, but speech coming from the back as well. The results of this study revealed that Oticon ONSI with its second generation DNN provides an improvement in speech clarity of up to 1.2 dB SNR in comparison to Oticon 1 with the first generation DNN. This means that users can enjoy clearer speech from all around them, giving them better support for conversations and everyday listening situations.

Whoa. That was a whole lot of technology fit into a tiny little hearing aid. But no matter the product style, we think Brain First. Our full portfolio features cutting edge technology and provides life changing solutions regardless of age, severity of hearing loss or single sided deafness. We hope that you're as excited as we are about the range of life changing solutions and we'll keep these in mind when choosing the best solution for your patient.

Now I'd like to turn our attention to several topics designed to support your clinical efficiencies and save you time. The first one is our newly updated Oticon Genie 2 fitting software.

The development of Oticon Genie started in 1999 and it was first introduced in 2001. Here you can see the evolution of Oticon GENIE in the early days.

In 2007 you can see Oticon Genie starting to look like its current form. As the fitting software has grown and evolved, it's become more modern and incorporated many extra features and functionalities. In addition, many of the existing functionalities have been streamlined and improved. In 2016, Oticon Genie 2 was introduced with the launch of Oticon Open. This may be the evolution that you're most familiar with.

The goal of making changes to our fitting software is always to enhance you and your patient's overall experience. With this update, we wanted to focus on creating easy access to essential fitting tools that hearing care professionals use most often. Here are some of the updates that you'll see in Genie 2.2025.1 the navigation panel and menu are now on the left side of the screen and are collapsible to provide you with more workspace the top bar is now updated with more information including the audiogram and an easier to see connection status. A new onboarding tool includes information about what's new in the fitting software and it guides you on where to find the different menus and features. This will always be updated each time our fitting software is updated.

Program Manager has also been updated with a more modern look and feel and the fine tuning graphs are conveniently visible here as well.

All the key clinical tools and resources have been organized into one place that you can easily access from anywhere within Genie 2. It has a wealth of information including fitting guides, person centered care tools, training videos and user guides, as well as technical data sheets.

Another convenient new update within Genie 2.2025.1 is the ability to run the feedback analyzer during a remote care session. This is only available for Oticon Intent hearing aid users with firmware version

1.2.0 or later. When running the feedback analyzer during a remote session, there's no background noise monitoring. Therefore, it's really important to instruct your patient to sit in a nice quiet place and sit as still as possible during the measurement. Finally, you should instruct your patient to make sure that their hearing aids are inserted fully before running the feedback analyzer.

Oticon Genie 2.2025.1 includes firmware updates for many of our hearing aid families. To optimize performance, we recommend that you update hearing aid firmware when a new version becomes available. For Oticon Intent, the new firmware version is one, and the performance improvements for that version include compatibility with our Easy LE adapter. It enables the feedback analyzer during a remote session, adds compatibility for our new Comfort Pulse controls within the Oticon companion app. It enables a broader choice of spoken indicators for the hearing aids and some various improvements for better connectivity and overall performance.

Here is what the new audible indicators look like under the finish step. These include shutdown program change, service check mode, and battery end of life. I'm happy to tell you that the battery pre warning that was introduced in Oticon Real is still available. In order to choose your voice notification versus your tone, all you'll need to do is toggle on the icon that indicates which one you'd prefer. For voice notifications, it's the speech bubble.

For tones, it's the musical note. In order to select your language for your voice notifications, you'll need to use the drop down menu here, located at the top underneath the menu bar.

With this latest release, I'd like to quickly review the current programming devices for our products. For wireless programming, we recommend Noelink Wireless 2. However, you can still use the original Noelink Wireless. For wired programming, we Recommend either the HiPro 2 or an ExpressLink. Some older wired programmers like the original Hipro can still work, however they will be considerably slower for both programming and firmware updates.

For Oticon Onsi, this will be programmed with a cable as it's a non wireless product. Both the IIC and CIC devices can be fit using a programming Adapter mini combined with a cable number 3. The programming adapter mini looks like a size 10 battery pill and connects the devices with Genie 2 via two small battery contacts that act as programming connectors. Those battery contacts mean that no extra openings are needed to insert the programming Adapter mini into the battery compartment.

Here is another video that you can find under the Instruction videos guide within Genie 2 software. In order to be able to connect an IIC or a CIC, you'll need to do this with your programming Adapter mini and insert it into the battery drawer. Once you've done that, you can connect it to your number three cable and you're good to go on programming your IIC or CIC with Genie 2 2025.1.

Now I'd like to introduce you to our brand new accessory, the EZ LE Adapter. EZ LE Adapter allows us to bring two way hands free calling to Android phones that don't have LE audio protocols. This is your phones that have ASHA protocols or other Bluetooth audio protocols that are made prior for Android phones. This adapter can also be used with tablets and PCs that support a USB C connection port. Oticon Intent devices will need to be updated with firmware version 1.2.0 to be compatible with the new Easy LE adapter.

Now let's watch a quick video about Bluetooth LE Audio and the EZ LE Adapter from one of our colleagues in Denmark who's worked on this project, Heidi Gaid.

The new Easy LE Adapter bridges the technology gap and extends connectivity options for streaming for devices that do not come with LE audio out of the box, whether that being Android phones, tablets or PCs. It's super simple. Just plug the adapter into your favorite USB C enabled device, pair it with your hearing aids or any other wireless audio device that supports LE audio and you're ready to go. Once paired, you can move the ECLD adapter onto your tablet or your PC without having to redo the

pairing as that's kept within the adapter. The EasyLED adapter has been designed to fit phones or tablets with standard covers, and it even comes with the option to charge your phone or your tablet directly through the adapter so that you at all times are ready to receive a phone call in great audio quality.

Heidi gave us a great overview of the Easy LE adapter. I'd like you to keep in mind that it's designed to bridge the technology gap for USB C based smartphones, tablets and PCs that do not have Bluetooth LE Audio. You'll need to update your patient's Oticon Intent hearing aids with firmware version 1.2.0 or later it's always a good idea to update a patient's hearing aids to the latest firmware that's available. Now let's take a look at how to pair the EZ Ely adapter to the hearing aids as well as your smartphone or tablet.

To get started, all you'll need to do is plug in your Easy LE adapter into the device that you'd like to pair it with either an Android phone, tablet or PC. The EZ Ely adapter will automatically power on and enter into pairing mode. Once it's plugged into your device in pairing mode, the easyle adapter will start to search for any hearing aids that are ready to pair. In order to get your hearing aids ready to pair, you'll need to restart them by plugging them into the charger or turning them off and on. The EZ LE adapter will find the hearing aids and then you'll be able to see the blue light show up at the bottom of the LE adapter showing that they have been paired successfully.

The Easy LE adapter also allows for pass through charging for your use.

As a reminder, the Easy LE adapter is compatible with any Oticon hearing aid that supports Bluetooth LE Audio. Like Oticon Intent, it also works with Android phones, tablets and PCs that all support USB C ports. It's not compatible with most phones and tablets that happen to have a 3.5 millimeter audio jack. Many manufacturers choose to route the audio through that jack rather than a USB C port, so therefore the audio will not be picked up in the same way. The Easy LE adapter is not compatible with iPhone,

iPad, Mac, Vision Pro, or any other Apple device.

These products use Apple's proprietary Apple BI Directional Streaming or Apple Direct Streaming protocols, and those allow our devices to connect directly to Apple products. It's also not recommended to use this with Android phones that support Bluetooth LE Audio. Finally, keep in mind that while the EZ LE adapter enables direct streaming and hands free communication, it doesn't support call handling or control via the push buttons or the Tap control.

If connection is lost with the EZ LE adapter and the hearing aids go out of range, connection can easily be restored by removing the Ezle adapter and restarting it by plugging it back into your phone and tablet or PC. This will restart the pairing process with your patient's hearing aids. A pair of hearing aids can only be paired and connected to one Easy LE adapter at a time, and if another adapter is paired, the initial pairing will be deleted from the hearing aids. Finally, I'd like to let you know that Pass Through Charging is not available when the eAsyle adapter is plugged in through a PC. It's only available when connected to a smartphone or tablet.

We recently had an update to our Oticon Companion app. It was released on January 20 and here is a list of all of the updates that were included. There's also an additional update that I think you'll appreciate did you know that most people only rate apps when there's something that doesn't go right, and they usually only give positive reviews if they're given a prompt to do so? This version of our app allows users to now have the option of giving us a rating at any time. The great thing is this resulted in more people giving us ratings on how they prefer the app.

The result is that we now have a 4.7 out of 5 star rating on both the App Store and Google Play. The updates in this latest version of the companion app include a new Comfort Pulse Tinnitus feature, which is a sub feature of the Tinnitus Sound support program and allows for convenient personalized tinnitus relief on the go. A new dark mode setting allowing the patient or user to be able to choose whether

they're always in light mode, dark mode, or a combination of the two A new reconnection experience when the hearing aids disconnect from the app an enhanced initial pairing flow for iPhone, and finally, an updated hearing aid naming which will allow for more characters for your patient's name within the app.

In this newest version of Oticon Companion, your patients with a tinnitus relief sound program can control their reliever sounds as part of their tinnitus management program. From their tinnitus program, they can adjust the relief sound and the volume of the environmental noise separate from each other. They can do this for each hearing aid independently or both hearing aids at the same time. In this way, patients with tinnitus can now take control of their relief sounds and personalize their solutions on the go.

Another amazing new feature of Oticon Companion is the ability to adjust the modulation pattern of Tinnitus relief sounds using our new Comfort Pulse feature. With Comfort Pulse, the user can now select from four pulsation patterns within the app to manage their tinnitus based on their personal preferences and changes with their tinnitus on a day to day basis. Each of the patterns applies a different modulation setting to their broadband tinnitus sound and Comfort Pulse is only available for Tinnitus sound support broadband relief sounds. It's not available for your Ocean Relief sounds because the modulation is preset in those three options. To access Comfort Pulse within the Oticon Companion app, the user must have a Tinnitus sound support program in the hearing aid which is enabled by you within Genie 2 software.

To personalize their tinnitus relief sounds. The user will tap the new Comfort Pulse option within Companion app to open that menu. Comfort Pulse is available for all hearing aids on Velox, Velox S, Polaris, Polaris R and Sirius platforms that can connect to the Oticon Companion app. Lastly, the word Reliever has been changed to sounds in the Tinnitus program within the Oticon Companion app. All

hearing aid families should be updated to the latest firmware version to access this feature.

We've provided you with a lot of big updates in small packages today. Our focus is always providing you with life changing technology in the products we offer and continue to build on efficiencies that you can integrate in your office processes with the goal of providing better outcomes for your patients. I hope you've enjoyed your time learning about all the recent updates from Oticon. Thank you so much for taking time out of your busy day to be here with me.