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## Phonak Sky Marvel; Love at First Sound Recorded September 9th, 2019

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- [Alicia] Alright, good morning or good afternoon, depending on what part of the country you're in, I want to welcome you to today's presentation on Phonak Sky Marvel, love at first sound. I wanna take some time to introduce myself first. My name is Alicia Vanderzanden and I am one of the territory managers on the pediatric team here at Phonak. And it's really exciting to be here today to introduce our new products here in the pediatric portfolio. If you've ever participated in audiology online presentation, or maybe this is the first one, you'll know that you're able to type in questions to the left. I will do my best to answer questions throughout the presentation. But if I'm not able to get to it, we will have about a few minutes at the end where we'll be able to answer any remaining questions you have. So first, let's take a look at our learning objectives. And so number one, participants will be able to summarize the new Phonak Sky Marvel product offering. Number two, participants will be able to compare and contrast how Sky Marvel meets both the acoustic and physical needs of your pediatric patients. And number three, participants will be able to summarize the benefits of Sky M and RogerDirect.

So we'll go ahead and jump right into it. If we think about children in general, not just kids with hearing loss, we know that they have an enormous amount to learn to help them succeed throughout their life. This isn't just about learning to read or learning math. It is also the skill surrounding building relationships, which are hugely important to their ability to cope in their world and be successful. A recent paper from the Center of Developing Child at Harvard University describes the quality and stability of relationships with those around them during their early years, as being fundamental and laying the foundation for a successful outcome in many areas. And what are those areas, will take a look. So they can include self-confidence, sound mental health, motivation to learn, achievement in school, and later in life successful conflict resolution, knowing the difference between right and wrong, developing and sustaining positive relationships. And that's just to name a few, you see a number of other ones



listed up there. So the question that comes to mind is how can we assist the child in developing in these areas? And according to that Harvard research, the answer to that question is in serve and return interactions. So what are serving and returns? They're back and forth interactions and turn taking conversations between the child and those around them.

So in their early years, it's likely their parent or a grandparent, or maybe their daycare provider. These interactions incorporate all communication strategies, so not just in words, but also in gestures and body language. And this picture here to the right as a good example, of a serve and turn interaction, serve and return. The mother is on the floor with the daughter, maybe they're talking about the noise their hands make when they hit the ground, they're making great eye contact. And so it's a good visual for what a serve and return might look like. Research has shown that the serve and returns help to provide the basis for these important relationships by stimulating the formation of neural connections, by strengthening the brain architecture, and by supporting the development of social and communication skills. Now to build on serve and returns, the quantity of words and the number of turns a child checks also influences language development down the line.

So if you've been to one of our trainings recently, you know that we talk a lot about this 45 million word mark. And that's the number of words the child needs to hear, by the time their age four to be ready for school. But it's not just the quantity of words that matters, it's also the quality of the words that they have access to. So Massachusetts Institute of Technology cognitive scientists, have found that the number of conversational turns between an adult and a child is even more critical to language development, and has a stronger impact on brain activation than the number of words heard. So quality in this case can refer to not only the complexity of the language that they have access to, but it might also be how well the child is able to access that. So are there other factors such as noise or distance in their environment, that's minimizing



the effectiveness of the communication they have access to. So what do children with hearing loss need, in order to profit from all available serve and returns and to assist in the quality and quantity of language they have access to? Children with hearing loss need clarity and richness of sound. They need access to more words and conversations throughout their day. And they need hearing aids that they can and want to wear the full day every day. And so with that, I'd like to introduce Phonak sky Marvel. I'm gonna switch over to a video. Here we go.

- [Narrator] You can find love in a laugh in a game of whispers, and solving a challenge together, or simply in a good conversation. And sometimes love just needs a little help. The new Sky Marvel from Phonak helps children with hearing loss build relationships, by providing access to back and forth conversations that are fundamental for growing strong bonds. Sky Marvel introduces a unique combination of pioneering technical innovations, and essential channel specific features such as AutoSense Sky OS 3.0, the world's first operating system designed for children, it automatically adapts to their challenging listening environments. Sky Marvel is the world's first pediatric hearing aid capable of direct streaming from both iOS and Android devices, and Roger microphones opening up a world of communication opportunities. It's safe and robust even when life gets a little wet. Sky Marvel offers clear bridge sound and access to more words every day, helping children with hearing loss build strong relationships one conversation at a time. Phonak life is on.
- [Alicia] Alright, so I think that's a great video that just helps introduce Phonak Sky Marvel and where will spend our time this morning, or this afternoon talking about. So what does Sky Marvel offer? The four pillars of Sky Marvel are clear, rich sound, connectivity to smartphones, Roger and more, rechargeability, and child-specific design. So by providing the child with clear, rich sound, it provides optimal access to speech sounds which then can assist them down the road in developing their own speech, their own language. With simple and reliable connection to smartphones.



Roger mics and more children can maximize both the quality of the signal, but also the quantity of words that they have access to when they're streaming media from their devices. A rechargeable option now gives the child, parents and teachers confidence that the hearing aids are working optimally all day long. And by having hearing aids, which are designed specifically with children in mind, it makes them simple, safe, and easy to use. So first, let's go ahead and take a look at clear, rich sound. So clear, rich sound is provided in Sky Marvel through AutoSense Sky OS 3.0 and SoundRecover2. So AutoSense Sky OS 3.0 is the same program that we know and love. It's just been updated. And so this now includes two new streaming automatic programs. So in addition to classifying a child's day, it's also able to classify the stream signal that the child is listening to. So if they're listening to speech or whether they're listening to music, it's gonna apply different fine tuning changes. So it's been updated to include those streaming protocols.

And we're gonna go ahead now and take a look at some of the research with AutoSense Sky OS. So what we know is that AutoSense Sky OS is the world's first operating system built specifically for a child listening environment. And there has been a series of studies that have been completed by Jason Wolff and others at Hertz for hearing. And they focused on kids speech discrimination and preferences, first with AutoSense OS, and then with AutoSense Sky OS. And so this first slide that we're looking at this as research involving AutoSense OS. So this looked at the percent words correct performance comparing three different programs. So Real Ear Sound, Manual Directional microphone. So they had to press the button to access the microphones. And then the third program was an Automatic Noise program, which in this situation was AutoSense OS. They evaluated performance and number of different situations such as noise, loud noise, car noise and in quiet. The results show that there was no significant difference between the manual noise program and the AutoSense noise program. But both of these were significantly better for word recognition, than the calm situation, that Real Ear Sound program. They also tested and inquired to



show them in that situation there's no detriment to having access to an automatic noise program. So it wasn't going into a directional microphone when it was inappropriate for it to do so. So the next step was to look at how well AutoSense classify the child's day relative to an adult's day. And what the research found was that some situations such as group work and yelling are unique to children's daily listening environments, and weren't optimally recognized by AutoSense Sky OS. So we know that a child's day they're in recess, they're on the playground, they're in music class. And that's not necessarily situation that a typical adult is in. So this meant that their day wasn't being classified correctly. And then the AutoSense Sky OS program was developed. AutoSense Sky OS is 30% more precise in classifying noisy classroom situations, and 39% more accurate in recognizing yelling and shouting as unwanted noise. So it's providing better comfort in noise and speech in noise. And because of this AutoSense Sky OS is now the automatic startup program for all your pediatric fittings. For your younger patients, it's obviously, so if you're zero to three year olds, the directional microphones are gonna be a little more conservative. But this is now gonna be the startup for all pediatric fittings by default.

So to validate the improvement I just talked about, 50 children were recruited for an additional study to assess whether AutoSense Sky OS improve listening, comfort listening fatigue and other areas. So for this study, they rated their preferences comparing AutoSense OS and AutoSense Sky OS. So for example, if they were rating comfort, the higher the number is better. So the scale look like this, five meant it was very comfortable and a zero meant it was very uncomfortable. So again, the higher the number the better. And what we see is that for all five situations, the AutoSense Sky OS was rated higher and more preferred over AutoSense OS. And it was significant for all the categories except fatigue. So the next question was, well, how well do they perform with AutoSense Sky OS? So the previous study showed that they are preferring it, but how do they actually perform with it? And so this study compared the performance across five different combinations of adaptive features. So they looked at



calm program versus a noise program. Omni directional versus directional microphone, and then noise reduction on versus off. So when we look at this graph, the one all the way to the left, that represents no noise features present. So they're in a calm program. They're using an omnidirectional microphone and noise reduction is off. Whereas when we compare all the way to the right, the noise program is active. The directional microphones are active and noise reduction is on. So all available noise features are on. And what we see when comparing performance and speech and noise coming from the front is 24% better speech understanding in noisy situations, over a calm setting when speech is coming from the front. So they took this one step further and said the same group of children, rated their preferences.

So again, there's the same five program settings, and they wanted to look at which one was rated as the most comfortable. Which one had the best speech understanding and which one was the overall favorite. And again, this was subjective readings. Then what we see is that the kids rated AutoSense Sky OS as the most comfortable. It provided the best speech understanding subjectively, and also was the overall favorite, regardless of whether this speech was coming from the front or from the back. Another thing we'll see here is that the setting that the kids preferred the least consistently, was the calm program with the omnidirectional setting. So that was the least preferred of all of the listening situations. Now we're gonna go ahead and take a some time to talk about SoundRecover2. So SoundRecover2 is not a new feature.

So we've had SoundRecover for a while and SoundRecover2 has been around since Sky V. And what we know about it is that it provides additional detection and recognition of high-frequency speech sounds, while also maintaining low frequency structures, which we know is super important for speech acquisition. So I'm gonna play this video and I think it's a really great visual of what is exactly happening with SoundRecover2, in the adaptiveness. So I'm gonna go ahead and let it play first and then I'll explain what you saw. So let me switch over to the video. Oops, wrong one. All



right, so that video did a great job of describing the adaptive feature. So with SoundRecover2 it is adaptive. So we now have two cutoff frequencies, which you see here. They're CT1 and CT2. And it's gonna switch back and forth depending on what the input signal is. So if the input is dominated by high frequencies, like you saw the S signal in this video, and no low frequency is present, then it's gonna extend and use the lower cutoff frequency. So that CT1, but on the flip side, if the energy of the input signal, is a low frequency, like the vowel was, that off sound, then compression is applied in the area above the upper cutoff frequency. So CT2, they're gonna use the higher one, therefore preserving that low frequency signal. So any specific questions that you have on SoundRecover2, whether it's validation or programming please don't hesitate to reach out to your rep. They'd be more than happy to assist you through. This was just a quick overview of it. but they'd be able to go a little more in detail if you have more specific questions.

So AutoSense Sky OS and SoundRecover2 in combination help to provide that clear, rich sound that we talked about for our children, and allows us to maximize serve and return opportunities, quantity and quality of words. And helps to continue building those important social development skills. So now we're gonna talk about connectivity. So sky Marvel is the world's first pediatric hearing aid that provides direct streaming from both iPhone and Android devices. And so this is huge. We're very excited to be able to offer this and to especially have a solution that is not just limited to one cell phone, it's able to connect to billions of devices. Sky Marvel is also the first, pediatric hearing aid with direct streaming of Roger. And kids can also enjoy direct streaming from multimedia sources through the TV connector.

So let's take a look and walk through each of these components right now. Why is connectivity so important? Kids today don't know a world without technology. That's just, you know, that's what's happening. We all have been to a restaurant, or been to someplace where we see kids on their cell phones. Not necessarily looking up around



them. We just know that technology has come such an integral of their daily lives, not only for learning, but also for socializing and entertainment. In fact, recent research looking at media use and attitudes found that 78% of elementary students report they regularly use a tablet or smartphone. And about 80%. So 79% of schools report using tablets in the classroom. So not only are the students and your patients using this at home, but they're also using this technology in school. So for years we have been working to ensure that children with hearing loss in the classroom have equal access to all these technologies, with Roger and now with Sky Marvel they have equal access to their technology as well.

A couple of highlights about our connectivity. We're using a Bluetooth classic protocol. So with this you're able to connect easily just through the Bluetooth settings of the device. So whether it's your cell phone or your tablet, or the computer, it's a quick connection and it does allow for binaural streaming of both cell phone calls as well as media. So if they're streaming their Pandora or they're taking a phone call to their mother, it's gonna stream normally for both of those situations. Thanks to the recent Marvel 2.0 launch as well. We're able to pair to two devices at once, so they are able to be paired to both their cell phone and a tablet if they want to. But connectivity is awesome and we're very excited to be able to bring this to you, it's not the only important part of their day. So Roger, we know and love, there's a lot of research behind it. So Roger provides 54% better speech understanding compared to other remote mic technologies. So this further just allowed them access both at home and at school. And there's some new research out there that I wanna walk you through today.

And the first one is from Benitez and Barrera and others at Vanderbilt. They evaluated Roger for home use and found that children can have access to up to 5,300 more words per day when using a remote mic system, compared to when using hearing aids alone. Further analysis of that same data showed that children can have access to as much as 12% more child-directed speech. That so it's quality language input from a



distance that they wouldn't have been able to access, that they weren't using a Rodger system. And lastly, new research from the outcomes for children with hearing loss group. And this found that when comparing language outcomes for children with hearing loss, those that used to remote microphone technology at home performed better on higher order language skills, in this case, better receptive discourse skills, than when they weren't using a Roger for home system. So what this boils down to is significantly better access to not only the quantity, but also the quality of language, and access to more of those serve and return opportunities.

Let's take a look at each of these studies individually. So first we'll take a look at the Vanderbilt study. You may have seen this already. This was published in February of 2018. This study looked at 10 families who were observed over two consecutive weekends. The first weekend they did not use a remote mic system. So one weekend they were just using hearing aids. The other weekend they were using a remote mic system. They also use LENA technology. So Language Environmental Analysis Technology. If you're not familiar with this, it is a system that is used to measure the amount of talk by the caregivers. So how much were they talking and how much did that talk to the child have access to. And they looked at caregiver speech from a close distance, so near the child but also looked at caregiver speech that was produced at a distance, and they did a number of different analysis taken from this. The first one here shows that graph to the left, shows that when using a remote mic system caregiver spoke more from a distance, and in fact about 10% more when they were using the remote mic system versus when they were not. And part of this is because the family may have had the confidence that if they were in the kitchen and their child was down the hall, that because of that remote mic system, they were going to be heard.

The second graph to the right there, this is where they were able to determine that the child could have access to up to 5,300 more words per day. And so that's huge, especially when we talk about that, quantity of language that they need access to. But



the question from this came, well, how much of this speech was child-directed speech? So how much of it was quality language input? So they actually performed a second analysis of the data, which we'll talk about here. So this data showed that on average, 57% of the talk that caregivers produced during this study was child-directed speech. 12% of that child-directed speech was produced from greater than six to 10 feet away. So it was a produced at a distance, greater than six feet. This 12% of child-directed speech produced at a relatively far distance from the child reflects high quality adult talk. So that quality language input that they likely wouldn't have had access to if using a remote mic system. So that's huge. I'm just being able to provide this greater access simply by adding a remote mic system.

The last study we'll talk about is the outcomes for children with hearing loss study. So the latest research of this was conducted by and published this year in 2019. This study used propensity scoring to match 27 pairs of children. And if you're not familiar propensity score and they just tried to match on as many factors as possible, and they matched on a of different categories except for remote mic use. So in this case, in the pair, one child had a remote mic, the other child did not have a remote mic system at home. And they compared the language at five years. So once they got to five years old, they compared the language development and they found that children who received a personal remote mic system had significantly higher scores on those higher level, on language scores on receptive discourse ability than without. So again, just further supporting the use of Roger, not just at a school but also at home as well. Alright, so we talked about the research. Now let's talk about RogerDirect, which is the new exciting feature in Phonak Marvel hearing aids. Now I know we're in, you know, webinars so I can't see you, but I'm sure most of you are shaking your head, or nodding your head 'cause you've been in one of these situations in the past. So maybe you had a family that wanted to use a Roger system and you didn't quite know which receiver was compatible. Do I go with integrated? Do I go with a Roger X Receiver and using universal, what audio shoe do I need? Maybe you've lost some pins out in the



classroom when you're switching out the audio shoes, and you're reaching around trying to find it. Maybe you forgot to remove that battery door sticker. You can't quite figure out why the system isn't working. I've been guilty of that as well. Maybe you needed a tamper proof solution, but once you took the battery door off, you lost that because you added an audio shoe on. Or maybe you wanted to keep that IP68 rating. And we've all dealt with lost receivers in the schools.

So whether they take them off and put it in the wood chips, or they lose it in the hallway and it gets swept away by the janitor, can guarantee that most of you at one point or another have come across one of these situations. With Rodger direct a lot of these considerations are now gone.

So we'll take a look at RogerDirect now and kinda discuss some of the updates with this. So if you haven't heard about RogerDirect, this is a new feature in Marvel that allows you to stream a Roger microphone directly to the hearing aid without attaching a receiver. There is still a receiver needed but you don't have to attach it any more. Now it simply gets installed into the hearing aid. So with RogerDirect now really, the only thing you have to consider is do I have a Roger X receiver available? If the answer is yes, then do I have a compatible Roger receiver? So the Roger receivers that are compatible are going to be champagne in color or have the serial number 1744, and higher. The nice thing with this is all Roger microphones are compatible. Just the receivers do need to be a certain serial number. And if you have one of those that's compatible with the new Sky Marvel hearing aid, all you have to do is go through a simple installation process.

So this installer here, this is the easy to use device that just takes a AAA battery. So it's portable, you're able to move it from fitting room to a fitting room, or from classroom to classroom. But all you do is simply plug the Roger X receiver in to the top of the device and then you place the hearing aid on top, and after a few seconds it's actually going to install that Rodger technology directly into the hearing aid. You're then able to pair a



Roger microphone directly to it. If you have specific questions on this. And if you need a Roger installer or would like to learn more about the actual process, please let your rep know or contact me after. I'd be more than happy to get you some more information on this. But this is really exciting technology.

Again, because we don't have any audio shoes, you're saving time from having to figure out compatibility. The Roger X now is no longer being installed onto the hearing aid. So it's gonna stay with the educational audiologists, so no more losing them in the wood chips and having to get out to your metal detector. If you don't have a Roger X available, there is actually a second way to access RogerDirect.

Now I'm gonna preface this by saying, this is not a school solution. This is designed mostly for home. So if you are in a school and you do not have a Roger X that's available and compatible with RogerDirect, you would need to purchase a new one. For this again, reach out to the school desk or to your rep, they'd be more than happy to help out. But there is a second way now and that's through a Roger ION, and those can be found to the right there. They look just like a pen and a select. The difference though is that the IONs come with the pair of zero three receivers. So we've never really talked much in the pediatric realm about the difference between zero two and zero three receivers. But we do have two options available. Zero two receivers those are our pediatric and education receivers. So those have full compatibility across our Roger portfolio. So they're gonna be able to work with the touchscreens, but also the pens. Zero three receivers which are available in IONs. Those are only compatible with pens and selects. They're not able to work with the education microphones like the touch screen and the inspiro. They're also slightly defeatured.

So for example, you're not able to adjust the easy game. So that's why this is, then I'm gonna talk about is not a school solution. It's meant for an easy affordable home solution. With this microphone, all you have to do is press the button on the side and



it'll install the receiver for you. So just press the button, it'll install the receiver directly into the hearing aid, and it will also pair for you. So again, this is more affordable and easy for home use. The nice thing about Marvel is that if the clinician does choose to use an ION for home use, and installs as zero three receiver, the school can also install their own zero two receiver to work with the touchscreen. So it can support both of the receivers. And then that way you're not having to switch back and forth, which is another nice thing with Marvel.

Now again, any specific questions about the Roger X installer or the ION microphone, please don't hesitate to contact me after the presentation today, or reach out to your rep and they'd be more than happy to walk you through this, and answer any more specific questions you may have. But again, this technology is, we're super excited to be able to bring this to you. We're kind of not considering this an evolution. It's more of a revolution because... Oh, the video, I don't know why it's not showing up. But anyways, this slide was just to say that the perfect pair of Sky and Roger just got even better. So now that we're able to pair Sky technology with Roger all in one, easy to use device and it's a game changer for us.

So let's take a look now we talked about the benefits to the providers. Now let's take a look and talk about, maybe how this is gonna benefit your patients. Up there it goes. Sorry about that. Alright, so Sky Marvel. Now with Sky Marvel, the hearing aids are 42% smaller when using Roger, and 32% lighter, but they still provide the same 100% Roger performance. So in this visual here is comparing the Sky M-M with the Sky B-P with the Roger 18 design integrated receivers. Now if you're in the school, you're likely not using a design integrated receiver. You're using an audio shoe with the Roger X, and that can be seen in the picture here. So I think when you show what the schools are using, the difference between the two is even more drastic and dramatic. So for your older patients, maybe your teenagers that are a little more averse to Roger, this is gonna be more cosmetically appealing 'cause there's no extra pieces on the hearing



aids. It's still the same, same size whether you have Roger or not. It's also perfect for your little ones. So you know, your babies don't have a lot of behind their ears. So having a smaller and lighter options just doesn't put as much bolt behind the ear, and just makes it that much more easy and better to use. All right, so the last part of connectivity we'll talk about is the TV connector. So you may be asking me, Alicia, why do we a streaming device if I can direct connect to any Bluetooth device? And there's a couple of different reasons. one is it's an easy plug and play solution to stream from not only TVs, but really any sort of media device. So if they want to stream from their computer, or from a tablet but maybe don't wanna use up one of their Bluetooth spots, they're able to do this. It does require a power source, but you can just use the USB jack for example in your computer, and it's easy plug and play. So all you would have to do is pair the first time and then any time the child is in range of it, it will automatically stream to the hearing aids.

There is a way that you can adjust it so it's manual, but it does default to being automatic. So if they're going to be watching a lot of TV, maybe they're a big Netflix binge watcher and they watch TV all day every day, or maybe they do a lot of video games and wanna stream the audio from their video game. This is a great solution because it's also gonna save on their battery life on their hearing aid as well. Another reason why the TV connector is a great solution for your patients, is kind of what I talked about earlier. So Marvel has two Bluetooth pairings, but if they want to stay connected primarily to their cell phone or their tablet, for example, but also wanna connect to their computers either at home or at school. This is a separate Bluetooth protocol, so they're able to use this and not interfere with the two Bluetooth pairing spots that they have. All right, so moving on from connectivity. Now we're gonna go ahead and talk about rechargeability.

So Phonak Sky Marvel now has a rechargeable option that allows for ear level Roger, thanks to RogerDirect. And so there are many great things to love about our new



rechargeable option. I will fix them hearing aids which children want to wear. So the rechargeable PR hearing aid provides children with a reliable power source that lasts all day long, even with 10 hours of streaming. So if they're streaming all day from the Roger, but also doing some Bluetooth, they're still gonna get a full day on a single charge of a hearing aid. It's also super quick to charge. So a full charge from being completely dead to being fully charged takes only three hours. So thanks to our lithium-ion technology and is very quick to charge. Even if you only have about say 15 minutes, you're still gonna get enough of a charge to last them through maybe to lunch, or through the end of the day. It's also a reliable battery, so they're engineered to last six years. And so that's a really long time. By the time the hearing aid battery is going to start to give out, they're likely due for new hearing aids anyways. Thanks to rechargeability, they're much easier to use. So they no longer have to worry about changing out the batteries, remembering what color battery they have. Maybe did I take the sticker off and not wait long enough?

All of those previous considerations are gone. Also for your itty-bitty, is it safe, so for your zero to three patients, or your younger ones that need a tamper-proof solution, because the battery is completely encapsulated, there's no way for them to get to that battery inside so there's no battery door for them to open. So it's much safer for them to use. So parents can rest easy. They're not gonna be able to have access to that battery there. One thing you'll see here is there's also a new Phonak charger case. So for the new Sky Marvels, the charger is going, the hearing aid, excuse me, are gonna come with the Phonak Charger BTE RIC, this is an updated design. So because Sky is a BTE, they had to make room for the, excuse me for the earmolds. So they did update the design. If you ever have questions over what charger is compatible with what hearing aid, or what charging options are available, you can let your rep know.

One other thing to note is that with the new Phonank charger, there is no external power pack. However, you're able to plug in any of your own power pack. So if they



have their own like MoFi device for example, that maybe they use to charge up their cell phone throughout the day, that will work with the new charger case. So they're still able to charge on the go without having an outlet source. All right, well now let's go ahead and take a look at the child-specific design. And here, we'll take a dive into the pediatric portfolio. So thanks to RogerDirect, the hearing aids are much smaller and lighter. They also have the industry leading robustness.

So I know there was a question, it looks like Andrew asked, how water resistant are they? The Phonak Sky Marvel still have that IP68 rating. So if you're not familiar with the IP68 rating scale, that is a scale of how water resistant and also how dust resistant they are. And so with a Phonak Sky Marvel now they have an IP68 rating, which is the highest reading you can have. And that is now with Roger or without Roger, or so previously if you took the audio or the battery door off and put an audio shoe on, you would lose some of that IP68 rating. But now, thanks to RogerDirect we're not losing any sort of, that water resistance and dust resistance because of adding Roger. So that's nice because for the parents or the teachers, they have the confidence, that their hearing aids they're going to be able to stand up to the wet and wild world of kids these days. They're playing in the bathtub, bathtub at our house, bath time at our house is a really fun time for us. So they're able to have access that and still have confidence that they can wear the hearing aids throughout the day.

They're also even more safe thanks to some new tamper-proof features, which we'll go through here in a minute. So they updated some of those features again to lead to that industry leading robustness. They also updated the indicator light, and moved to the positioning and also changed some of the light behaviors, which we'll review. We have a new size double zero SlimTube. So hopefully I heard, you know, hopefully there are some cheers out there. This was a big request and we now have an even smaller SlimTube option for your patients that you wanna consider, an open fitting on, maybe you know, even the size zero is too big. So we do have a new option and that has been



added to our portfolio. So without further ado, I'm gonna introduce now our Phonak Sky Marvel portfolio. So our new streamlined portfolio features three form factors and three performance levels, so still available in a 50, 70 and 90 technology level. One thing to mention is that the connectivity features and the RogerDirect features are standard and they will be available on all performance levels. So we're able to offer that even down to a Sky M-M 50 level hearing aid. The three form factors that we have. First we have the Sky M-M and this has the three 12 battery that the previous Sky M had. But now thanks to RogerDirect, we can have ear level Roger compatibility in an even smaller hearing aid. The sky M-M is available now. So this launched on August 26, so this is available and shipping now.

The next hearing it is our Sky M-PR, so Sky M-P is now available only on rechargeable option. But again, because of RogerDirect, we're able to still offer a rechargeable option with your level Rodger access. This is available for preorder now. It's not going to ship until later in the fall. So we don't have exact dates but be on the lookout for emails from us, once we have information on that we'll be able to get it to you. But you know, because of all the features that we just talked about with rechargeable, we're really excited to now offer that solution that has an all in one. And then lastly we have a Sky M-SP model. This is gonna be available in early 2020. So we announced it now, but it's not quite going to be available until early 2020. Again, we don't have any specific questions right now. but our specific dates right now, excuse me. But as we get those, we will be sure to update you.

So again, any questions on the portfolio or if you need help recommending a hearing aid, please let your rep know or any other questions, please don't hesitate to reach out to me. One of the most popular questions that I get is what about the colors? Did you change the colors? And the answer is no. So the same colors that we had in Sky M including both the hearing aid and the ear hook, we did not change. So they're all still available. So with 14 different color options, you can cater to different personalities.



And also the hearing aids and the ear hooks can be mixed and matched. And once you add in a new colorful earmolds, there's several different color combinations. We have like one last video to show. All right, so this is just a little video to illustrate our color and our color combinations. We'll go ahead and play that now. Alright, so a very cool video there. So again, no new changes to the colors, which is exciting. All right. Now let's go ahead and take a close look at some of the updated tamper-proof solutions that we have. So one thing that I mentioned earlier is they updated the tamper-proof battery door. And so this is only going to apply on your Sky M and your Sky SP hearing aids, with the rechargeables there is actually no battery door. So they don't need to have this tamper proof option. But with this new updated tamper-proof battery door, the action is still the same and the tool is still the same.

So you still need that little black tool and you're still gonna lock the battery door back. But what they did is they moved the dimple or the hole on the battery door. So that dimple is now at the bottom of the hearing aid as supposed to on the side. Because of this internal tests have shown that the tamper-proof battery doors is now three times more robust than the door from belong the platform in previous generations. So it's even safer for your little ones. Again, your families can just have that confidence and peace of mind that they're not gonna have access to the batteries. One thing to note, tamper-proof is required for a children zero to three. So it will come standard with the Sky hearing aid. And if you need more tools, or something you know, we're always more than happy get you some more of. The next update that they made is to the ear hook. So the ear hook is now the same for all form factors and again, available in the same colors. It's the same process.

So all of them, you will just simply mount the hearing or the ear hook by screwing it on. And then you just put the pin through the screw section to lock it in place. So this is again gonna be the same for all and this includes also the rechargeables. The indicator light is also updated and improved. So you see here on the picture, that indicator light.



And I'll go ahead and let me get the oops. Wrong button. Here it is. Alright, there's my pointer. So the indicator light here in the middle, it has been moved. So now instead of being the whole program button, it is now just a small portion of the program button. This update was made so that if they're changing the program button, so if you have your finger over either the volume up or volume down screen, you're still able to see the program button change. So if they're changing volume control, you're still able to see that light. They also updated some of the behaviors. So now when the battery is running low, it is going to rapidly blink.

So on the M and the SP that have just the zinc-air batteries, it's going to rapidly blink green. On the rechargeable, it's actually gonna rapidly blink red. And so that's a nice feature because it gives an easy way for the teachers and the parents to see that the battery is running low, and they have usually about an hour after they start seeing that blink before they need to get it in the charger. But again with that quick charge even if feel only have 15 minutes, you're still able to get a few hours. And the same applies you'd still have about an hour with the zinc-air battery before you need to change it out. Well, one thing that I didn't mention in the previous in slide I talking about rechargeables and other cool feature is that in the charger, it'll actually blink to let you know how much charge you have. So if the battery is running really low, it blinks red, then it'll turn to about an amber orange color. And once it's fully charged, it'll blink solid green so that they can just quickly look into the charger and see what the battery life is. You can also, anytime you hook it up to target, you'll be able to see what the battery percentage is.

One new update that we are really excited to be bringing you is a new SlimTube. So they updated the entire portfolio. So now it is ergonomic, it's more comfortable. It's better fitting for both comfort and retention, but we've added the new double zero SlimTube. So again, this was a request because you might wanna consider a SlimTube for somebody younger than six, but maybe the double zero, excuse me, the single zero



didn't fit. Or maybe you just had an older kid that just had really tiny ears. And if you didn't have a properly fitting SlimTube, then you were having to consider maybe an earmold, for example. So the new double zero is available with Sky M's. One thing to note about this is that it is not tamper-proof. So therefore we don't recommend it for anybody younger than 36 months, because they're theoretically able to twist it off, and potentially eat the dome, for example.

So it's not recommended for your younger kiddos, but it is a great solution for some of your older ones. And then the same measuring rules apply. So we still have the zeros, the ones, the twos and the threes and it's still gonna be the same measurement. But just now we have that new double zero for your youngest patient. So we made some updates in target. And I'm not gonna go into too many of the specific details. But one thing to know is that for Sky Marvel you do need target 6.1 to program. So there was an update overall to the target program. So that is now available you are able to download the update directly from the target software. If you don't have Internet access or if you need a DVD or USB, please let us know. We'd be more than happy to get you one. But you need to get this update to program Phonak Sky Marvel hearing aids. You also need Noahlink Wireless. So if you don't have one already, let us know. But Noahlink Wireless is the new programmer for the Sky Marvel. So it's essentially replacing the iCube II, you'll still need the iCube II, for your venture and belong fittings. But for Marvel, you'll need the Noahlink Wireless.

A couple of other highlights with target and you'll see that there's some new Marvel features, that are specific to Marvel. If you want to go if you need more information or you want to have a more in depth training session on target, please let your rep know, they'd be more than happy to assist you and letting you know what's specifically new with target and relates and relative to Marvel. And any other tips and tricks we'll be able to show you. But I just wanted to highlight some other ones. So first of all, after consulting with the pediatric advisory board and with NAL, they made some junior



mode defaults updates. So there's now new defaults in there. They also changed the updates to the RECD process to be in accordance with ANSI standards. And then when I talked about earlier, the changes to the indicator light blinking patterns and that has been updated. And then when that's not on the site here, but again, relates to the relative to the AutoSense Sky OS update that is now your new startup program for all pediatric fittings. But again, any more specific information that you want or need on target, let your rep know and they can walk you through it.

One last thing that I wanna talk about is myPhonak app. So the myPhonak app is a new app that became available on August 26, when we launched our Marvel 2.0 updates. The myPhonak app combined our remote control app and our remote support app, as well as the hearing diary app into one easy to use place. With the updates they improved so that the users have the ability to adjust the bass, the treble. It's no longer just for volume control. They're also able to adjust, for example, like the speech focus and the directional microphones and the noise reduction. The dynamic range, users have a lot of control. Now we don't necessarily want to give our pediatric patients that much control right away. So we are an evidence-based practice or evidence-based company. You know, we really tried to validate all of our solutions in our portfolio. So myPhonak app is currently going through some usability and validity studies and relation specifically to pediatric populations. So it is not quite available. It'll be available in early 2020.

And again, just look from your wrapper from Phonak, any sort of information when that's going to be ready. They can still download it. So your patients may find it if they simply search their app store, for example, they can still download it. It just won't connect to their Sky Marvel hearing aids. But rest assured they do still have the ability to connect to stream for music and for audio. So they are still able to connect and have all of those features. They're just not quite yet ready to use the myPhonak app. One more thing to point on that if they're using one of our other hearing aids, like the audeo



or the Bolero, one of our non-pediatric hearing aids, those still will work with this app. It's just specifically the Sky Marvel. If you have a family that wants remote control but they maybe don't want to have the volume control active. There is a new remote control option that works specifically with Marvel hearing aids. So with that you can again talk to your rep to get them more information, or your audiologist to get more information. All right. With clarity and richness of sound access to more words and conversations, hearing aids that kids can and want to wear the full day every day, we can be confident that Phonak Sky Marvel in combination with RogerDirect will help to lay the foundations of a child with loss to become a successful adult with hearing loss. So at this time I'm gonna open it up for questions.

I have a few questions that we see now. So I'll go ahead and start answering those, but let me know and feel free to type in any other questions that come up, and we'll get the opportunity to answer some of those. So one question, and I'm assuming this relates to RogerDirect. It says, "What if you have more than one child "with hearing loss in a classroom?" With RogerDirect the nice thing is that you can, that installer you can use from child to child. So you would just need, a Roger X for each of the hearing aids and you can use that installer to install a Roger X into them. And then the microphone, the Roger microphones compared to multiple students at once. So if you have two students each with a pair of Marvel hearing aids, with the hearing aids and the Roger X installed into them, the one microphone would just simply pair to each of those microphones in the classroom. All right. So hopefully that answers that question, if not, let me know if there's any followup questions.

And then another question, are Sky Marvel hearing aids compatible with Roger and inspiro. And the answer is yes. So the RogerDirect feature and sky Marvel is compatible with any Rodger microphone. So that includes Roger and inspiro, Roger touchscreens, the pass round mics and multi media hubs as well. Also the pens, the selects and the clip on mics. So those are all compatible. It's just that Roger X receiver,



is necessary to be installed after that. You're welcome. So it looks like we still have about five minutes. We'll go ahead and answer and open it up to any other questions that you may have. So thank you all for joining me today. I look forward to seeing you at a future training.

