# The Future of Clinical Care (Part 2): The Role of Fitting Software

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Presenter: Mary Beth O'Sullivan, MS, CCC-A; Kyle Longwell

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Partner: Cochlear Americas

- [Mary] Hello, everyone. Thank you so much for joining us. I am Mary Beth O'Sullivan. Kyle Longwell and I are excited to be here just a few days after receiving FDA approval for several new products that you'll be hearing about in the coming days and weeks, including our fantastic new software platform, Custom Sound Pro. Welcome to part two of our three part virtual workshop, the future of clinical care. In our first webinar, Barbuck presented on evidence based solutions to some common clinical challenges. That is now available as a recording and I do highly recommend that you listen to that if you've not yet had a chance. Today, we will continue that discussion and look at where programming fits into this conversation. Software can play a role in improving patient outcomes and clinic efficiencies and we're here to walk you through what that looks like in Custom Sound Pro. The learning objectives for today are to identify examples of patient-focused care. Explain how data regarding MAP stabilization can positively impact clinical care and describe examples of evidence-based practice related to fitting software.

As we discussed in the first session, audiology has an inherent mission to help as many patients as possible to access appropriate hearing intervention. We're only reaching a small percentage of people who may be qualified candidates. And yet, our clinics are very busy and cochlear implant clinicians report challenges managing the changing medical landscape with increasing patient populations that they're continuing to care for. Clinicians use evidence and patient values to inform clinical decision making in a more consistent and systematic way. So any processes, tools, or services that we at Cochlear create should align with clinician and patient needs. It should support clinic efficiency, reduce redundancy, and support a positive hearing outcome while being backed by data. Cochlear implant care delivery is a journey for both the patient and the clinician. As an adult patient begins their hearing journey with a cochlear implant, there are key milestones over those first six months. In the first month, the focus is on audibility and comfort as well as device acceptance. Between

one and three months are typically focusing on map optimization and fine tuning to help with sound quality. After three months, the patient is trying to navigate the real world and day to day situations that are important to them. Eventually, we see performance plateau, typically, by about six months. An initial activation appointment is different than a follow-up visit at three months or three years. In Custom Sound Pro, we now have streamlined fitting options to accomplish the goal set for any point in the journey. For an adult at initial activation, the programming goal is audibility and comfort. There's no expectation that the patient will walk out with their perfect lifelong map on the first day. Streamlined programming has been available in Custom Sound for several years. The new approach to streamline fitting for initial activation was designed to allow for the time spent where it is most beneficial to the patient, basic device use, and acclimating to sound. At the one month and three month visits, on the other hand, an emphasis on map optimization requires a different approach. And what about six months or 10 years later? T's and C's are not changing much, What is the best approach for a patient at that visit? Custom Sound Pro is designed to be flexible for the individual customization that you've relied on for 40 years.

- [Kyle] Alright, thanks, Mary Beth.

- [Mary] Kyle.

- [Kyle] Yeah, so as noted, we started this webinar series with a discussion about the evidence-based approach which Mary Beth just touched on. And so this approach to CI care is important context into the role that fitting software plays in the care delivery plan of our patients moving forward. And its role in improving patient outcomes and clinic efficiencies. Our mission statement here at Cochlear really drives us to help solve these issues and we really, truly take it to heart. We dedicate a significant amount of research, development, resources to making sure our products tools, services, and software empower you as clinicians to connect with your patients. We want to make

sure that our tools and fitting software continually transform the way you treat patients with hearing loss. And we strive to innovate and make sure that we're delivering you products, solutions, and software that helps you maximize the hearing outcomes of your patients each and every day. Now, let's take a look at kind of where we've come from, from a fitting software perspective. Over these many years, we have seen some key trends, including a gradual miniaturization of the programming interface. And in addition to that, there's been some world firsts in fitting software over the years. Some milestones that I'll call out include 1982, the activation of the first commercial multi-channel CI recipient using DOS based software. Skipping ahead a little bit to 1995, the introduction of NRT based fitting for confirmation of nerve responses. And then were some further advances to NRT based fitting in 2001 as well. A bit more recently, in 2006, the first version of Custom Sound fitting software with the wired programming pod was introduced, revolutionary at the time. But Custom Sound largely has not changed much since then. In 2015, we introduced wireless fitting equipment to help provide you more convenience and flexibility in how and where you program your patients in the office.

And we're here today, summer of 2020, stepping into the future with the introduction of Custom Sound Pro. To the right of the slide, you can see there's a world of technical advances that may affect the future of CI fitting, we wanna make sure that we have the building blocks in place today to leverage and accommodate these initiatives moving forward. A hallmark of building an evidence-based solution is a trusted partnership and that goes in research and development of the clinical care tools that we're developing as well as really understanding the patient experience with those tools itself. Over the past couple of years, we've conducted quite a bit of research across the globe to really understand what people like and don't like about our current fitting software. Our developers even have the opportunity to work closely on a daily basis with clinicians to understand how they and their patients are interacting with our software in real life situations in the clinic. What we learned is that clinicians love the flexibility and the

power that Custom Sound fitting software provides. They love being able to adjust parameters when managing complex cases. And for this reason, we have not taken away any of the functionality that you know and love about Custom Sound today with the introduction of Custom Sound Pro. All the features that our experienced users know and love are still there. But one final insight that was revealed is that many clinicians still feel like they need help managing patient expectations about their CI performance and outcomes. And so we've built in a suite of new features to the software to specifically assist with this. As we think about transitioning health care to a more patient-focused delivery of care, we know that technology has improved along the way and expectations throughout the patient's journey with a cochlear implant have changed. And it's clear that we needed to provide a new platform that would be able to support patients and their goals within the fitting software a bit better. And so if we think about as Mary Beth was talking about, confirming audibility and device acceptance, we have tools like the Nucleus Smart Aapp that can be used to confirm device usage especially helpful for those pediatric recipients.

Of course, Custom Sound and our Bing software are used to optimize maps and fine tune hearing when someone is in the clinic. We also have an incredible line of True Wireless Accessories to better assist with those real world hearing situations. And we have tools built into our apps that can help patients maximize their hearing performance. Things like Hearing Tracker, Bring Back the Beat to help build those music skills and maximize performance. And finally, we have new, innovative remote care tools like remote check to help you provide a lifetime of monitoring and support for your patients when and where they need it. Really transitioning to this holistic patient-focused delivery of care. And so with all this in mind, I would love to introduce Custom Sound Pro today. Our next generation CI fitting software, it's been created harnessing almost 40 years of industry experience, input from thousands of clinicians worldwide throughout the design process and the result is really an intuitive, powerful fitting software that will replace Custom Sound 5.2 and give you the flexibility you need

to provide tailored care for every single patient. It has been designed to give you and your patients an unbelievable user experience. And we think once you're fully up to speed with the software, we hope that you find that enables you to focus more on your patients, less on the software itself. And we think that by including features that are designed to enrich the patient interaction and engagement along the way, that you can certainly accomplish that. The first time you open the software, you will probably notice that the design of Custom Sound Pro is very new. It has a completely refreshed color scheme and a new user interface, which we'll touch on in just a minute. We've changed the location of some parameters, but improves path navigation with a new guided workflow. But again, despite these changes, don't worry, all your favorite programming functionality is still there. Custom Sound Pro will maintain all the power flexibility, but this intuitive new design layout and new functionality is designed to enhance the fitting process for you and your patients today and into the future. It is pioneering new fitting software technology designed to meet your needs today and serve as a building block to the future.

So let's take a quick tour of the software and highlight some of these key new features. The current Custom Sound fitting software, as I've noted, has been in use for almost 15 years, so some of you here in attendance may have many years of experience with it. Again, Custom Sound Pro will look and flow somewhat differently, but certainly retained the spirit of Custom Sound Software. Let today with Mary Beth and I serve as your orientation to the software. But know that you will soon have access to online training resources that will go into much more depth and you will also have hands on practice available to you shortly. So within a week or two in myCochlear Clinic for those of you that have access to or have an account with myCochlear Clinic, that will be your place to go. You will soon be able to log into MyCochlear and access self-paced learning and a toolkit that will include brief how to videos, and interactive screenshots to help you learn the location of all these fantastic new features. And there will also be a unique opportunity to get hands on practice with patient cases and

scenarios built into a virtual version of Custom Sound Pro prior to its release. So this is gonna be a very cool, great new way to learn this new software, we are incredibly excited to be offering this new, interactive learning experience soon. And look for more information on this learning opportunities availability shortly from your local Cochlear representative. But with that being said, I'll go ahead and turn it back over to Mary Beth to give us a quick walkthrough of the software now. Mary Beth, back to you.

- [Mary] All right, Kyle. I'm super excited to be able to do this finally with everyone. And over the coming weeks and months, hopefully people will come back and watch this video and continue to learn. So welcome to the new dashboard. The Custom Sound Pro dashboard presents an overview of relevant patient information displayed on a single screen, assisting you in managing your fitting sessions efficiently and effectively. You may navigate through the software using the tabs in the top navigation panel, measure, adjust, or finalize. Or follow the guided workflow by clicking the gold button located at the bottom of the screen. Here you're prompted to the next logical step in a fitting flow once all the necessary tasks have been completed. First, I will orient you to where you can find the tasks required for programming sessions. Next, we will walk through the fitting flow for initial activation and for follow-up appointments. Let's continue to walk through this dashboard together and then I will introduce you to each of the tabs on the navigation panel. The audiogram data is now displayed for both ears along with the details about the implant and the processor. Impedance is now run automatically when the coil is attached to the head, saving a mouse click. Electrode status is displayed in color on the dashboard. Click the impedance electrode indicator to see more detail the impedance data if required. So by doing that, you would click right here on these impedance notes, there. And then you will see this This is a familiar report if you have worked with Custom Sound. And you can get the information that you're looking for if you need some more details. Close the report to return, oops, let me get rid of that. Close the report to return to the dashboard. The patient will be off air when measuring impedances, NRT, thresholds, converting maps and saving maps to

the processor. However, new in Custom Sound Pro, the patient can remain on air as much as possible to facilitate natural interaction and discussion. Click here to go on or off air in any screen or use the escape key to stop stimulation. Clinicians are able to choose their own individual default setting for on air behavior. Patient goals are a new feature incorporating the COSI questionnaire and including usage data. And session history can be found here on the right of the screen. Notes are opened automatically for review, which is an additional time saver. When entering patient information, you will be able to enter the contralateral device and it will display on the screen. Moving across the tabs in the navigation panel, the measure screen offers a variation on the image of impedances. As with the dashboard, click on details to see the detailed report. AutoNRT is also found in the measure screen. AutoNRT is a measurement of the auditory nerves response to stimulation from the implant. And measures the ECAP threshold called T-NRT. NRT thresholds can be used to assist in creating maps in the global adjustment and comfort screens.

By default, Custom Sound Pro software selects five electrodes spaced evenly along the array and automatically measures NRT responses. The autoNRT algorithm has been optimized in Custom Sound Pro software to improve measurement speed. After three measurements are collected, the starting point of any additional measurements will shift automatically to reduce the time it takes to collect this data. In cases where all 22 electrodes are measured, this can be a significant time saver. The next tab in the navigation panel takes us to the adjust screens. You can select different maps, make global adjustments, or adjust comfort and threshold levels. If you have been working with Custom Sound software for many years, you're going to be excited to see that our engineers truly listened to your critiques and suggestions and brought them to life here in the adjust screens. The visual walkthrough today will be a helpful orientation, but the sample cases in the self-paced online toolkit will provide a hands on software experience, so that you can really get comfortable and confident with the new workflow. Previously, setting C levels involved the following steps. Measure C levels

with beeps, interpolate, reduce all Cs, go live, increase C levels in live. So this is the streamlined approach in our current software. In Custom Sound Pro, the tools in the comfort screen and live voice setting capability is more efficient. Counteracts loudness automation effects and is less taxing for the patients. This is where it gets exciting, the adjust screens. Because this is new, let's point out that you can access the fitting assistant by clicking on the question mark icon in any of the adjust screens. This is a knowledge base of commonly reported sound quality symptoms and recommended actions for resolution. This has been significantly revised and expanded beyond the hearing mentor function available with the previous software. If you have been working with Custom Sound for many years, you likely have a working knowledge of typical dynamic ranges and C levels. However, clinicians do often wonder if the map is approximately where it would be expected to be. This shaded area displays C levels within which 68% or roughly 2/3 of nucleus patients will have their C levels fall. This guide is to assist you in setting the overall loudness, the master volume level. But it's important to note that there will be some patients who require their C levels to be set above or below. It's not the goal, it's just to give you a guide.

The shaded range will vary depending on the electrode and which method has been used to create the starting map. In this example, autoNRT results were used to create the map, so the expected range shown on screen takes into account the patience autoNRT thresholds. As mentioned on the previous slide, the task here is to achieve audibility by making global changes to a map during live speech. Typically here, the master volume is adjusted while on air until sounds are comfortably loud for the patient. Bass and treble levels can then be modified to improve sound quality. It is not possible to measure individual T and C levels on this screen, but that will be coming in a minute. Global adjustments can be performed on comfort levels, threshold levels, or comfort and threshold levels at the same time. Step size is editable on screen as either current level or percent dynamic range and additional settings and parameters can be displayed via the cog icon in the top right screen. Compliance limits can be displayed if

selected in the clinician preference. And what about bilateral programming? Here, you can see maps for each year, adjust each side individually to ensure the same perceived volume and sound quality, then link the two sides together. Where's my arrow? Here. To set overall perceived volume and sound quality across devices, several features have been introduced to improve bilateral fitting in Custom Sound Pro software, including bilateral on air behavior, the new linking and unlinking feature, guided workflows covering left and right processors and improved bilateral balancing and saving. We previously mentioned compliance limits, and you can see those here. These dashes, they automatically appear when C levels approach 10 current levels below the compliance limit. So here you can see as it's getting close, then the compliance levels will appear, and let you know that you're getting close and it's gonna to be something to think about. As with the current software, if compliance limits are exceeded, a pop up will request approval for the pulse width of the map to be widened for all electrodes. The right ear is the red map.

The previous T and C levels are faded or ghosted to show changes from previously measured levels. It looks like there's a question. Are there changes to the keyboard shortcuts? The keyboard shortcuts do still exist. There are a few different changes and you can look that up in the tools section and that will be very clear. And you'll get a chance to actually play with that with the hands on toolkit that you'll have access to if you have myCochlear Clinic access. Great question, thank you. The comfort screen is designed for careful checking of loudness, comfort, and balance using sweeps. The first thing you may notice in this screen are those bands on the left. So over here. This new functionality introduced in comfort screen to allow loudness sweeping using bands. By default, all 22 electrodes are grouped into eight evenly spaced bands. When sweeping, each band will stimulate three adjacent electrodes almost simultaneously, rather than each individual electrode in turn. Band sweeps can be done in either direction using these options at the bottom. Multi-channel beeps typically sound louder than a single channel sweep due to channel summation. So this approach may save

some time and be less taxing for patients than sweeping and making judgments on every individual electrode. Measurement of individual C levels can be done in the set levels screen if required. We'll get to that in just a moment. If a patient indicates that a band is uncomfortably loud, then adjust the loudness for that particular band using the right hand controls. The end sweeps are not available with the freedom sound processor, single channel sweeps only. The comfort screen also supports sweep balancing and adjusting if individually channels is required. The threshold screen allows for individual threshold measurements for map optimization when needed. As with our current streamline fitting options, threshold levels for five evenly distributed electrodes are measured, which can then quickly be selected here on the left hand panel. Although it's possible to select and measure additional electrodes across the rate if desired. Thresholds are shown here in green. The current C levels are shown in gray as they are not adjustable in the threshold screen. The patient will be on air, I'm sorry, when instructions are given, but then automatically taken off air as soon as threshold measurements begin, you can add session notes to document changes by clicking on this icon. And look at parameters or make adjustments with the cog Consistent with our current software, threshold interpretation, interpolation will automatically occur between measured channels.

So moving now to the final adjust screen, oops, I'm sorry. Like to show you how interpolation works in the threshold screen, there are a couple of minor changes to point out. In this example, you can see the existing threshold profile shown in green, okay. Begin by re measuring the T-level on the first electrode. In this example, we selected electrode 11. The T-level changed slightly, and as a result, the whole profile will be raised to accommodate the change to the first measured threshold on channel 11. Notice that you can see the original starting threshold displayed in light gray with the fading feature. This shows how much threshold change has occurred since the previous measurement. Now, if we measure a threshold on another electrode in this example electrode one, notice how interpretation of thresholds is automatically applied

to just the non measured electrodes between 11 and one, no changes are made elsewhere. Measuring the next electrode in a different part of the array in this example, electrode 22 will again result in interpolation being applied, but only between the two closest measured channels, electrodes 22 and 11 in this example. Other channels outside that range remain unchanged and so it will continue with subsequent T-level measurements, interpolation is only applied between the two closest channels with measured T-levels. From the Adjust tab, you can access another screen called the set levels screen. The set levels screen will look familiar to Custom Sound software users. The Set Levels Screen remains available in Custom Sound Pro software for programming some implant types including Nucleus 22, ABI, and double array implants. In addition, maps with a typical parameter configurations will require use of the set levels screen.

Adjust screens will be grayed out and inaccessible in Custom Sound Pro software in these instances. And that brings us to the finalized screen. So we have moved across all of the tabs to just show you where everything is. And now, we're in finalize. We can enable processor settings, link tools around hearing aid, save programs to the processor and end the session. Once we have saved the programs to the processor, the battery estimation information will appear. So that orientation should help when you get into your online toolkit. But how does this software actually work in daily patient appointments? What is the experience gonna be behind that? We incorporated clinician feedback and there was also intentional purpose in improving the experience for the patient. The initial activation path and the follow-up path are usually different and can be appropriate now for the goal of each session. T's and C's are one of the key measurements and assessments that clinicians complete throughout the patient's hearing journey. How much do these change over time? And how often do they need to be measured? What does the current data tell us? This study looked at how much T and C levels change over a period of eight to 10 years in 128 adult patients. In 75% of patients the average change in T and C levels was less than 6%. This translates to less

than a two current level change. So when do T ans C levels stabilize? We see very similar findings with current T and C data from the 532 study using a pair muddler electrode. So the data suggests that most patients have stable T and C levels within the first three to six months, and may not need as many changes to individual T and C levels. If any changes are needed, slight global adjustments can be a solution for the majority of patients. Follow-up appointments can then be focused on individual optimization. And once the map has stabilized, there's more time for speech perception measures. This frees up the audiologist to see patients with more complex needs that require your expertise and additional programming support. Here's the fitting flow for initial activations that we are currently training. Notice how many steps there are. Also notice that there's not a different path for follow-up appointments. Now, we have a guided path for initial activations and another for follow-up visits. Initial activation can have different guided path depending on the audiologists preferred setting.

Keeping in mind the goal of initial activation is audibility, new maps may be autoNRT based, threshold based, population mean based, or other such as ESRT. The majority of clinicians here are comfortable with threshold based mapping and it is likely that they will prefer this for default. Population mean is a new tool available for initial activation. It was developed based on our large pool of data. From there, the 68% range of typical C levels was created and a dynamic range of 46 clinical units. This option is not for everyone, but it may be helpful when you have very limited time for a patient with responses that are unreliable. You'll have more information about this option in the coming months. On the dashboard, choose Tools, then Preferences, and this screen will pop up. Choose the default map creation method and the selection here will influence the steps shown in the guided workflow. Defaults can be set differently for children and adults. It's possible to deviate from a preferred map method if required during a specific session. So, what are the new fitting path suggestions? In every appointment, the dashboard is the first screen. Impedances are run automatically

and for threshold based activation, the guided workflow suggests the next step is adjust first the threshold screen followed by global adjustments, comfort for loudness balancing, and then finalized. This is very intuitive for the clinician and for the patient. There is a question here about the set level screen. So the question is just to clarify, can we go to the set level screen on each patient if we prefer to map the way we are used to and or need to do some advanced programming without having to work through the new workflow? You are able to go into that screen with any patient that you need to, you can do all of the advanced programming that you need to within the new screens, however, and so we don't expect you to need to go back to that screen, except for specific cases. That's a great question, thank you. So these activation flows, keep in mind, it's an activation flow.

So for the first day, you can go in and for about 80% of the patients, we've discovered with this data that this is a really good path. However, as Sarah mentioned in her question, there are complex cases where you need to be able to do something different and we do have the flexibility to do that. So every patient can be individualized. However, for the most part, an activation day is just based on or the goal is for audibility and comfort. And so this is a way to do this without spending so much time finding the T and the C and getting to a place where you know this is a map you can be confident with for day one, and then I'll show you the follow-up fitting flow as well, so that you know that you have this flexibility. With an autoNRT based initial activation, the guided path then leads from the dashboard to measure, the measure screen and autoNRT will be run. This is followed by global adjustments with threshold thresholds will have been estimated based on the autoNRT results, and then comfort, and then finalize. The population mean based initial activation, going directly from the dashboard to global adjustments, comfort, and then finalize. We now have software that's flexible enough to prompt the clinician differently for initial activation then for follow-up appointments. When the processor is connected and placed on the head, impedances will run automatically. The audiologist can review any details from

previous visits that are necessary to decide how to proceed with the appointment. For a routine annual follow-up, which make up the vast majority of appointments in the recipients lifetime, the guided path leads to global adjustments. So what should that appointment look like? For follow-up appointments, the guided path directs the audiologist to global adjustment and comfort. Thresholds may still be required. So the guided path, lemme use my pointer, the guided path will say go to the next screen, it will take you to global adjustments and then comfort for larger adjustments of the map. However, if you need to adjust thresholds, you can just click on that screen anytime and continue to measure the thresholds as you need to for that patient. This is obviously an important part of programming early in the process. And then also for complex cases maybe continue to be important throughout the lifetime. Once you then click on that guided path again or up here at the top, you'll be taken to the finalized screen where you can program the processor and save all your work. So let's talk about the COSI. We do have, your clinical territory manager would be happy to review the COSI for cochlear implant patients in more detail. The whole point of using an evidence-based approach to revising any clinical tools is to measurably improve the patient experience. Incorporating patient goals and the COSI into Custom Sound Pro facilitates a collaborative approach which is an important element in delivering patient-focused care. So now with Custom Sound Pro, you have the ability to incorporate the same questions from the COSI, it just looks a little bit different and have this opportunity for counseling, which is part of whole patient care. That is so important. So it looks like we have a couple of questions. So Kyle, we may have you pop up and help answer some of these.

- I'm happy to.

- So we have a question.

- [Kyle] So it looks like our first one is, does the population mean levels, do those change based on the internal electrode used? And the answer is yes. So the population mean and kind of where that starts will be based on the electrode type. It's a great question. And then our next one is, I think, is there a progressive map icon? and I'm not sure if we touched on that Mary Beth, on that finalized screen. It may have been missing there, but you will have the ability to go--

- So I go back to the finalized screen?

- [Kyle] We can or I'll just note that it will be, if it was missing from this, just know that it will be included in kind of the finalized version of software that you will be getting. So you will have the ability to still create progressive maps on that finalized screen, just like you're used to in Custom Sound today.

- [Mary] Okay. We have one more.

- [Kyle] And then the last one is, can you please explain or define the best use of autoNRT again? So, Mary Beth, do you wanna just touch on?

- [Mary] Sure. I think that is a clinician preference. And so in some clinics they do that as their protocol because it's an objective measure. And sometimes people working with young children will do that, so that they have that data if they're unsure about the behavioral methods. So I think in the United States, most clinicians prefer to work with a threshold based map, but you have that autoNRT as an option. So you have this objective measure that gives you a range and the thresholds are based on that automatically and you have some objective way of knowing that you're in the right ballpark for a day one map. So I hope that helps answer that question. Any other questions coming in?

- [Kyle] That's it for now.

- [Mary] Okay. How about questions about the COSI? How many of you are using the COSI? Type into the chat if you're someone that uses the COSI. So we have a question, will the COSI goals be exportable to a cloud, so they could be shared with other professionals?

- [Kyle] So the answer to that is not necessarily a cloud, but the goals and the action plan that comes as a result of, and so I'm not sure how well you can see on the slide here, but as you're working your way through creating patient goals, tracking their progress from one visit to the next, and identifying the appropriate action plan in order to help the patient reach those goals and the milestones that they'd like to achieve, you will have the ability to download and export those and provide them to the patient, so that they have their quote unquote action plan to take home with in order to help them kind of reach that goal and progress through their goal setting. And you will also have the ability to download back goal screen and share it with other professionals as you see fit.

- [Mary] Thank you, Julie for that question. Any other questions? I know this is, it's can be hard to come up with questions on the first moment that you see it. Okay, so let's do some some questions and see what you all have gotten out of it today, in case there's something that we need to review. Here's an easy one. What is the primary goal of an initial activation for you? Is it different than what I said? Type into the chat, is it different? What is yours, access to comfortable sound, exactly? Audibility and comfort to lower the impedances? Excellent, thank you. I'm curious, how much cochlear implant experience, how much programming experience you have? So, lemme know about how many years of programming you have? Because I think sometimes when there's a software change, it can be easier for people who are just out the gate than if you're really used to a software, then it can be harder. So we have eight years, four

years, eight years, 30 years, 2 1/2, 17 years. So for those of you who have over 10 years or eight years and 30 years, you've probably spent a lot of time training other audiologists and talking to patients and probably have given us a lot of feedback. So I hope that the learning of this new software, you'll be patient with yourself and lean on us to help you get through the learning curve. So we did have a couple of other questions. Where do you change the rate in programming? So it's a little difficult to show you on a screenshot, but in the adjust screen, there is the cog icon and when you open that up, you have the ability to make all of the changes that you might want to change. Another question, for those with variable pulse width, will the T's and C's still interpolate? That's a great question, Jennifer. If you have variable pulse width, you will be sent back into that set levels screen and it will not interpolate in the same way. So you'll be working in the software that you're accustomed to now. Can we change individual electrodes now in live? Ilana, I'm not sure I know what you mean. Do you mean like adjust the T and C while it's live? You can do that. Why is it the default maximum 10, I thought we were headed that way?

That is the finishing preference and you can set that in your preferences. Could you, please, explain again, the guidance for using the red highlighted area in the adjustment screen? Yes, Kevin, thanks for that question. I think, I'd like to go back to look at that, if you don't mind. Lemme pull up. Apologies, while I, oops, there we go. Okay, so this is expected C-level range. So this is just meant as a guide. So I saw somebody when we were asking, how long you've been working with cochlear implants. Someone mentioned that they were still in school. And so I know when I started working with implants, it was 2002 and it really was several years before I felt confident and I was very lucky to work in a really strong academic environment where I had people to lean on. But when I first started, I was by myself with a single ENT and having to contact people through email if I had questions, and I felt really insecure that I was setting patients up for success. And so then when I moved into the large academic program, I had colleagues where I could say, "This is how this is going, does this seem okay?"

And then after having many of my own patients, I knew kind of what to expect for a map, what it kind of should look like. And if it was not how it should look, quote, should, then what would I do to ensure that the patient was actually mapped appropriately? And so when you're learning a new software and you're learning the new this is so different than hearing aids, right? We can't just do a real ear measure and confirm that the output is appropriate for the hearing loss. So we have to use other measures. And so for for those reasons, it's helpful to know what an expected range would be. So we have over 450,000 implant patients globally. So we have a lot of data. And we wanted to be able to use that data to be able to benefit from it. So this shaded area shows the 68%. If you think of the bell curve, right, it's that 68% of where C levels lie. So it's just a guide for where a lot of people end up. It doesn't mean that it should end up there, but if you're way off, then you may wanna look at some other things to confirm that the patient is getting what they should get out out of their map. So I hope that's helpful. Are there any other questions? I love the interaction.

Thanks to you, guys. So the guided fitting flow in the new software. This is another question from the quiz. So we'll just make sure everybody feels confident in the information provided today. So here's what this looks like. We talked about it, but we went kind of fast. So as you go through these suggestions, if you click on this yellow bar, it will take you right to this comfort screen. If it says something else, you can just click on it, you can click on Thresholds, click on Comfort. This is the icon that takes you to the set levels screen. If you wanna go back and look at a measurement or select a different map, you can click anywhere and get there. But for efficiency, you can just click on the yellow, the gold icon and it will take you to the next step. So I wanna be sure everyone's comfortable with that. Here's a question about ESRT, is there a way to mark the levels in the software? At this point, there is not. For converting maps from N seven to canto two, does it auto convert or it might require a manual conversion? That's a great question and it's a little bit much for today's visit or today's discussion, but it is very well laid out in the online toolkit, so you will be able to see how that goes.

It is very simple and are just a couple steps. So and we will be offering some ready to wear options to take the burden off of the clinic. So Kyle, do you have any information about the ready to wear option?

- [Kyle] Nothing other than that ready to wear will still be available for those patients.

- [Mary] Okay, yap. So I know for some clinics with large patient populations that can really be a burden when we have upgrades to offer, and the ready to wear option means that we pre-program it through myCochlear Clinic and then the patient can come in for follow-up visits at a time that's convenient for all of you. So it looks like we don't have a whole lot of other questions today. So I'm going to just, apologies, but I wanna jump back to the end, oops. And there we are.

So just to summarize today, the Custom Sound Pro software offers you the power and flexibility that you've been relying on for all this time. And it is a data-driven design with a patient-focused experience. And that is really important, the idea that the patient plays such a strong role. The self-paced online toolkit will be available within the next couple of weeks and you'll be getting some communications about that, you'll log into myCochlear Clinic. And when you start the course, you will see all the different lessons pop up. The total time is about two hours. But you can come in and out as you want. It's a lot of case information. So you have this case and you go into this virtual version of the software, and you can practice as if it's an actual patient. The patient is pre-loaded, so you can actually move around in the training mode and get really comfortable with how it all works. So I think it's a really unique and new option for us, and I'm super excited. I think you guys are really gonna love it. There's a couple more questions coming in, will ready to where be an option for N 22? Yes, if they have an N six, so if they do not have an N six, then it will not because there's just too big of a difference between the previous processors and they'll need to go to the clinic for that. Are the guided training tools available now? So I think you're asking about this, the

learning toolkit and it is not available just yet and you'll get some communication about that. What is the saved file format, do you mean is it still a CDX file? If that's the question, then it is still a CDX file. Yes, okay. It is still a CDX file. And in this learning toolkit, there's a little one minute video just making sure you're comfortable exporting and importing those again. So no compatibility issues, correct. This software is retro compatible to all of our customers, all of our patients, and all of our processors, and all of our implants. So, okay, I think we've covered it. Thank you so much, everyone for coming and all of your wonderful questions. It's really been excellent. I really appreciate the feedback.