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Teenagers, Parents, and Auditory Therapy

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>> Donna: This is Donna Sorkin and I want to welcome everyone to our course today. We will begin the program in about three or four minutes. But I did want to give everyone some special information about the CEUs for today. We will be offering CEUs from American Academy of Audiology and ASHA but the procedure is going to be a bit different. If you

wish to have CEUs from either of those two, we ask that you please send an e-mail to Melissa at her e-mail address which is right there in the -- on the slide. And say to add me to the recorded version in the subject line. She will then be able to add this to your account and you'll be able to complete the exams and CEUs -- the CEU reporting that is necessary at a point in the future. We will be able to offer you a certificate of participation from Cochlear Americas, as usual, for every one who returns the feedback form. And just to remind you, the feedback form and MaryKay's handouts for today are available right now in the file share area of the screen and you want to just click on those. It is on the left side. You can save it to your computer. So you can go ahead and do that right now if you wish you can do it any time during the program. But I recommend that you go ahead and do it right now.

As always, we will be offering captioning for this event. It is realtime captioning. Which means it is verbatim, whatever the speaker says will be up here on the captioning screen so you can click on that link right now and those of you who work with colleagues who are deaf and hard of hearing, please let them know that we do offer captioning for these events.

I think we're actually ready to start so we could begin the recording. And today's event is teenagers, parents and auditory therapy. It is not all the same. We're very pleased to have back with MaryKay Therres who is with the Cochlear

Implant Program at the Children's Hospital in Philadelphia and just a word about this program in general. We have input from a number of our attendees at these programs asking us to offer some courses for older children. So we have tried to be responsive to that. This is actually the last in a program of several seminars that address the auditory learning needs of older children and so those have all been recorded and they're archived. So if you missed those and you wish to take them, please go back and look in the HOPE area of the Cochlear website at www.cochlear.com/HOPE and you can take those at any time.

I'm very pleased to have the chance to introduce MaryKay Therres again. She's been a speaker with us a number of times in the past. And you can have a visual sense of her as she's talking to you. That's MaryKay on the slide.

As I mentioned before, she's at CHOP in Philadelphia and she was previously a member of the Children's Hospital Oakland Cochlear Implant Team. She's the co-author of AuSpLan, a Manual for Professionals working with Children who have Cochlear Implants or Amplification. And I'm sure she'll talk about it today. She has over 15 years of experience with children who are deaf or hard of hearing. We feel very privileged at Cochlear to have MaryKay with us and presenting on our HOPE Online. So with that I'm going to turn the floor over to MaryKay. Thank you.

>> MaryKay: Okay, thank you, Donna, and welcome, everybody, this afternoon. Thank you for joining us. Today's talk is a little bit different for me. Usually I'm talking about mostly children. But I'm going to talk about teenagers today and just a quick overview of the things that I would like to go through.

Who is a teenager? Who are teenagers? I want to talk about their unique characteristics because it is different working with a teenager than it is working with a young child. We'll talk about some of that.

I want to get into the different roles that parents and teenagers and professionals have and how they may change over time a little bit. And then I'm going to get into the last part really more the meat of the talk that is the auditory hierarchy. I'm not going to address speech and language development today as much as I really want to talk about auditory and receptive language development, listening skills with teenagers and then getting into the practical parts of it. I want to talk about the -- some assessment because I like to be practical and some therapy tips and then different groupings of teenagers because they're not all the same. And I think when we get a teenager who has a cochlear implant they may be coming to us with different skill set. I want to talk about that. We're going to move on to the next slide.

Who is this population that we're talking about? What is different about them? I just have put up Erickson's stages of psycho-social development and each stage is seen as a challenge or a skill that a child needs to develop. You see they start with trust and mistrust and that is what children are focusing on the first birth to 18 months. Autonomy and shame and doubt and then they're starting to develop their initiative versus guilt and industry versus inferiority and what we're going to deal with is teenagers, adolescents who are really looking at their identity versus role confusion.

So in the -- in terms of the identity versus role confusion we're really looking at teenagers who are becoming independent from their family and they're really establishing their role in society. This is the skill set that they're working on and they're coming to us with. And they may use their parents as a first role model and often they're -- they have conflict directed towards the same-sex parent. I would say that my Mother does not disagree with that statement at all. And they're working on their identity which can be influenced by adults outside the family and they're becoming -- it's developed through life experience and they're also working on their self-image which is becoming more well-rounded; or unfortunately inadequacies are becoming magnified and here we see teenagers who are becoming more aware of the hearing loss or the technology that they're wearing and how this may make them different than others and this might not

have been as much of an issue when they were younger and sometimes now as teenagers it becomes more of an issue for them.

In terms of the self-concept, it is an individualization period and really the time for teenagers to discover who they are and what they want. We see they go through lots of experimentation and we may see wide swings of how a teen views themselves. They're trying different self-concepts for size. The questions they're asking themselves who am I and where do I fit into society and what will I be as an adult? I'm unique and I'm different or I want to be different.

And then also with the social skills and interaction, they're continuing to refine and practice their intermediate or advanced skills and that can include assertiveness skills, dealing with being left out, coping with change, self-advocacy and dating behavior. You can see that I have highlighted assertiveness skills and self-advocacy because I really think that these are probably the two areas that we can really assist teenagers in working on in order to help them become more effective communicators and just as a side, I don't think I would want to be one that helps them with dating behavior. I'm going to stick to the assertiveness skills and self-advocacy.

Prior to becoming teenagers it was really more parents and professionals that were really doing the self-advocacy kind

after of assertiveness for the children that we were really the ones who were doing the in-services and talking about what the hearing loss is and what their technology is. We were helping setting up the effective listening environments. We were working on strategies and teaching strategies to teachers to use in the classroom. We were really discussing with the IEP teams accommodations or accommodation in the classroom that need to be made. And now what we're looking at is really the teenager needs to become more aware of this and become their own self advocate. And that they are the ones, the teenager, that needs to identify the times when the listening situations are difficult for them and there is a break down happening and they need to be the self-advocate or assertive about how they can repair that break down skill.

If they don't understand that is something or what is going on in the classroom they need to talk to the teacher and let them know this is becoming difficult. That the teacher is constantly turning their back to the class and writing on the board and lecturing with the back turned to the class. It is no longer going to be the professional or the parent that is going to intervene. It really needs to be the teenager to do the self-advocacy skill.

A lot of the self-advocacy -- Kris English has provided a curriculum on this. And I think the next slide here -- actually not the next slide. We'll get to that in a second.

The next slide on Kris English, here we go, it gives a reference as to what to look for. I'm not going to do a whole lecture on this. The whole social and emotional as you know for teenagers it could be a half day lecture and actually Louise Montoya, mental health professional at Children's Hospital in Philadelphia. I wanted to give a teaser or heads up so we can focus on what population are we talking about today? Some of the information I just talked about came from these individuals but going back to then Kris English has a curriculum for self-advocacy for students who are deaf or hard of hearing. I would recommend that if you really want to kind of have a curriculum to assist your teenagers in learning how to be more of a self-advocate for themselves.

Back the other way one second. I just wanted to touch on that last slide that I had. Just some of the unique challenges that teenagers with a cochlear implant may have. And one is that environments can become increasingly more difficult. They're becoming more of a challenge for them so you know how noisy high school cloudy skies be and the classes can be larger and they're switching periods all the time. There is a lot more noise going on. It is not the more self-contained quieter classrooms they may have had when they were younger. It is more of a challenge for a teenager and they're going to have to face that and be able to deal with that.

As I kind of alluded to before for some, it might be the first time that they're really confronting their hearing loss. And so they're dealing with that and that is their sense of self-identity.

And for some, some it may change. During adolescence they're trying out the different roles and I have seen that a few times where we have children that have cochlear implant and who do well and are auditory-oral communicators and they have also learned some sign language and they get to their teenage years and suddenly they say to their parents I don't want my cochlear implant any more. I want to just sign. So these are things that may come up and that have to be addressed and dealt with. These are some of the unique characteristics of this population.

Now that we know who we're talking about, I want to just kind of get into a little bit of a discussion about the different roles that we're all going to play with this. What is the teenager's role in the development of auditory skills? (audio difficulty)

>> Melissa: Hi, MaryKay, real quick, I want to see -- I'm going to go check with her real quick.

>> MaryKay: As I was saying we could use our bribery and we could play our fun games and we could do motivation by stickers and so forth. But here really developing the skills has to be an internal motivation for the teenagers to want to develop the listening skills to the best of their ability. We're not really going to be playing as many games with them. It is

an internal self-motivation that we want to have happen.

We really see that the teenagers are going to be participating in identifying desired goals more so and I think I talked about this a little bit when I said they have to identify the listening situations and we are no longer trying to figure out when is it hard for this individual to understand and now, the teenager can come and say you know what, I have certain periods or there are certain times throughout the day or certain class situations or listening environments that are very hard for me and we can start to address that maybe in some therapy and work on some more auditory goals with them.

They're taking a more active role in the therapy process.

From beginning to end. The teenager is going to take more of an active role in identifying goals that need to be worked on.

They're going to be more active and involved in the therapy which goes to again primary responsibility for developing skills hopefully being motivated to want to develop skills and they're going to be responsible for carryover into the classroom into home and all the natural settings that are going on. So we are really putting a lot of responsibility on to the teenager at this point.

And as I've also previously mentioned, the assertiveness and the self-advocacy, this is really starting to become more of the responsibility of the teenager than it was previously of the

parent or the professional. Now, the teenager has to be the more self-advocate. In the past it might have been that the teacher asked the teenager to follow some type of direction and the teacher maybe saw -- I'm sorry not the teenager but maybe asked the child some type of direction and may have seen that the child didn't quite understand so the teacher may have automatically rephrased the question or repeated the question. And the teacher identified the break down and teacher made the clarification skill for the child. And now it needs to be the teenager. So now, the teacher might give the direction if the teenager doesn't understand it is no longer the teachers responsibility to identify there was a break down and do something about it. It is now, the teenager's responsibility to say that there was the break down and they did not quite understand and what needs to be done to have the affect of communication.

Working with that, and then the self-advocacy. Again it is more of the teenager's responsibility to provide the discussions to the class or to the teachers regarding the hearing loss and technology. Not so much that you're going to have the parent come in or professionals come and do in-services to the staff and the teenager can actually provide some of their in-services to the staff about their hearing loss and about their technology.

And then the auditory development now, the parents' role

because it is going to change a little bit, too. Certainly we want the parent to be supportive and encouraging of the child. And previously when children are younger, we always talked about the parent being the coach and really being the one that is leading the child and they were the coach for the child. Well now, the parent changes their role from being the coach to actually being the cheerleader. They're going to be more side-by-side with the teenager working with them versus leading the teenager. Parent is going to be responsible for assisting with carryover. They're no longer going to be the primary source of language input or model and I think classic case of that is, you know, we realize that teenagers are learning from others and the parent, other teachers but also their peers and my example is the use of the word "like." I was watching "American Idol" the other night and one of the younger teenagers who was a wonderful singer was talking about themselves and I couldn't even begin to count the number of times that the teenager used the word "like" in their sentences and I'm positive they did not learn that from their parent. The role model or the language model that that came from were the peers. So again parents are no longer the primary language input. They're getting a lot from their peers an incidental learning that is happening.

A big thing that we need to talk to parents about is decreasing the role of being the power adult. As you can see throughout these slides, it really is shifting from the teenager or the child

being more dependent and becoming more independent and so now, the -- the parent has to start being more of the cheerleader and working side-by-side but really giving over some of the responsibility about the hearing loss and the technology and development and motivation of developing skills over to the teenager.

And then just also parents should be aware of goals and expectations and they can have input into those but may not be primarily responsible any more for what specific goals want to be worked on at this time.

So really it is that shift from the parent being the primary to now, the teenager being the primary and the teenager becoming more independent with their hearing loss and their technology.

Then the professional role, the professionals are going to be part of the selection of goals and expectations going on. The professional is really going to be the one providing the resources and the activities and they're going to facilitate auditory development through listening activity so they're going to be responsible for therapy. I think one of the key roles continues for the professional is that they're going to be monitoring and evaluating progress. And then they're going to bring a lot of this information to the educational team and that they're going to guide the team regarding some

accommodations such as use of FM or modifications for testing that need to be happening in the classroom.

And then they're going to assist with this shift from being more dependent on adults to becoming more independent as the teenager. And that kind of gives you an idea of some of the different roles that we play and how it is kind of changed from when they were a child and maybe being more power adults and having more dependence on the role models to now we want to assist and help this teenager to become very independent.

I'm going to shift a little bit to the next talk or part of the talk ain't is really the teenager groupings that I want to go over. And in working with teenagers I have come up with four general groupings on teenagers who come to us with a cochlear implant or who may be soon getting a cochlear implant.

These next slides might be a little bit confusing but I'm going to go through them a little bit slowly and hopefully they'll make sense.

The first grouping that I'm really talking about is a teenager who comes to us who is either going to be getting a cochlear implant soon for a variety of reasons or a teenager who has just been newly implanted and this could be late on-site

hearing loss or it is a progressive hearing loss such as, you know, enlarged vestibular aqueduct and the hearing just dropped and this teenager who has been a very good auditory-oral communicator with hearing aids now cannot do the same with the hearing aids and might be that problem.

These are teenagers who have already acquired some very nice auditory-oral skills but their hearing technology is no longer cutting it for them and we have to consider an implant.

And the second type in this group that I'm just kind of for lack of anything else just pre-implanted or newly implanted is the teenager who has been a signing communicator with a profound hearing loss and has developed minimal auditory-oral skills. Really their primary means has been through sign language and then sometimes they decide as this whole role, confusion role identity, that they may decide I want to learn to develop some listening and speech skills and so they want to come and get a cochlear implant.

We're going to look at that kind of a teenager and that decision, you know, that is between cochlear implant teams and families to determine how this child will do and I think there needs to be some discussion about a -- about appropriate expectations or projected just comes and there is some realistic expectations of an individual who is older getting a cochlear implant about what they can do but that is

not to say that they can have success to whatever they have is their success.

Then our next grouping is those teenagers who come to us who have pretty much already had their cochlear implant for quite a while. That is going to be the teenager who may have been implanted early or maybe a little bit later but they have age-appropriate auditory-oral skills or close to age-appropriate skills and they're doing quite nicely with their cochlear implant.

Then those individuals who have -- may have been implanted early or maybe even a little bit later but they have significantly delayed or disorder auditory-oral skills and these teenagers are most likely sign language communicators and generally have other issues besides the deafness going on.

That brings us then to my Therres teen talk topics, the four groups we're going to talk about. I want to go through and talk a little bit about assessment and give some ideas about maybe some of the different tests that you can go ahead and provide and use for an assessment either for pre-implant or once a teenager has a cochlear implant we're also assessing and monitoring progress. We want to talk about some expected outcomes for the different four groupings and then I would also like to talk about therapy goals or specific therapy goals that could go along with these different groupings.

I will talk through this slide because it might be a little bit difficult.

When we're assessing teenagers, we're really talking about at this point auditory-oral skills. I'm not assessing their sign language skills. What I'm really looking at is how much they have used for their audition to develop receptive auditory skills and then verbal expressive skills. So if we look at grouping No. 1, which I'll remind you it is the teenager who has come to us and has developed auditory-oral skills and maybe because they have a progressive loss or a sudden onset loss are now a candidate for a cochlear implant or just recently received a cochlear implant. So would it be appropriate to do a formal test for these individuals? Yes, it would, because they have highly developed auditory skills.

That second grouping of kind of that pre-implant or newly, new to cochlear implant were those individuals that really had not developed auditory-oral skills. They were sign language communicators and really had not had a lot of focus on developing auditory-oral. So if we want to assess auditory other skills can we use formal testing? Probably not. They're not going to have very high-advanced skill in that level.

We use some formal tests that are not age-appropriate. Possibly. And I'm going to talk about some of the tests in a

little bit. Would we need to do some informal testing to try to determine skills and monitoring skills? Yes, we're probably going to look at more informal with that.

Then our third group, which is the teenager who has had a cochlear implant probably implanted early and has developed some nice auditory-oral skills would we be able to do formal testing for that group? Yes, we would. We would want to do formal testing because their peers are, you know, in the mainstream and we want to know what their language is compared to that. We're going to use formal tests for that.

And then our last grouping is those teenagers who have had their cochlear implants for a while but have other issues going on and probably are total communicators or use sign language as more of a primary means. We call them more the special education. Would we be able to do formal tests that are age-appropriate? Probably not. I don't think that they're going to have auditory-oral skills to that capacity.

Could we do some formal tests that are not age-appropriate? Possibly. We'll talk about some of those tests. And then we certainly want to be doing informal testing for these individuals and that is probably going to be more appropriate and give us more information, useful information. You can certainly give a test that is age-appropriate but if they're not able to answer any of the questions, you know, that test really is not giving

you any information.

Then formal tests that we could use that would be age-appropriate and actually I'm going to step back. Before I get into the formal tests, the different testing that we want to look at.

Overall we want to take a look at articulation skills. We want to look at receptive and expressive vocabulary and expressive and picture language and even higher level. Not only just surface structure language but we really want to look at some of the deep structure language, also. Then of course we're going to take a look at fluency and voice just to make sure there are not any concerns in those areas.

I'm going to go through some of the different tests. I'm not naming all of them. I want to give you some ideas of some of the more common tests that I give when working with the teenagers. It would be great if people wanted to have a little chat about specific tests or if you want to leave me some notes. I'm always talking to other professionals about what tests that they like and what specific reasons, you know, or tests that they have that tease out different things with that. And I'm going to talk about one of my favorite tests that most people don't use but I like it. We'll get to that in just a second.

Just one more note on testing. Do remember that all of these

formal tests are normed on hearing children and, so, when writing this up you do need to kind of make some statement that the tests are normed on hearing children and, therefore, results should be interpreted with caution or something like that. I usually put in a statement (audio difficulty) modifications may have been made to the testing protocol and that would be -- and what I might do is repeat it so, therefore, I have made a modification. And you know in my mind what I'm really looking for is that -- does the child have that linguistic concept.

When I'm looking at the testing, going back here, some of the age-appropriate tests for articulation probably the most standard is the Goldman-Fristoe test of articulation. If you really have disordered phonology and want to take a look at that you can do the Khan-Lewis phonological analysis.

In terms of vocabulary there is the receptive one word and picture one word vocabulary test, Peabody picture vocabulary test and Spanish version for that which is nice. And then there is the EVT, expressive vocabulary test. I think it is kind of a personal preference. I prefer the receptive one word and the expressive one word versus doing the PVBT. I know sometimes -- I will admit this -- you have to get 8/12 wrong in a section and you see a child that gets six wrong in one section and six wrong in a section and seven wrong and you know they're topping out and it is not going to make much of a

difference. They are scoring and then you think please get one wrong so we can finish the test and move on and I prefer the receptive and progressive one word and I think they score a little faster and I don't think that there is much difference in the final outcome.

Then for receptive and expressive language, the self-clinically evaluation of fundamentals is a pretty common test. I like quite a few of the sub tests in there. Another one that has quite a few sub tests, I think 14 sub-tests to it can look at a wide variety thing is the CELF which is different than the other CASL which I think is SSL which is more hearing losses.

And again for teenagers the test of adolescent and adult language and the Fullerton language test and the word of test finding and I think all the norms are for children over 12 years of age. It gets to our teenage category.

As I said, besides looking at kind of the surface structure I want to get into some deep structure testing. I like to do some language processing looking at that.

The TATS-3 which is new coming out is becoming one of my favorite kinds of tests. There are a couple of sub-tests on there. The auditory comprehension where they have to follow some directions. I think really it teases out some more of those inferencing kind of skills and higher level progressing

skills we want to know that teenagers can do. So the TAPS-3 or the listening test or test of problem solving.

And then formal tests that are not age-appropriate. So again as I've talked about some teenagers who can do some formal testing but really couldn't do it at the higher level as to some of the tests I have talked about or at and you can use tests that look at lower level language. And again you are looking at the auditory and oral skills and whenever I give the testing I do it through audition and speech reading because now I'm trying to give it in the natural environment. If a teacher is teaching the classroom they're clearly not using a screen and covering up their mouth so it is through the natural environment. You're not going to get standard scores on these tests but you can get some age equivalencies sometimes and it can give you some useful information. This might be in the case of -- that you're working with a 13-year-old and you know that they're not going to have language skills up to that level but maybe they have language skills at least to an eight-year-old level so you still want to do some kind of formal testing to get some information.

Again the articulation kind of the same test the Goldman-Fristoe. Some of the same vocabulary test because they go from very young to adulthood. But some of the receptive and expressive language that you could be using is going back again the CELF. One of my more favorite. You

have the CELF that goes from 5-8 and 9-21. So if you have this 13-year-old and you know that you give the CELF 9-21, that information is going to be too hard but you can still give the one that is for 5-8. Still get some language scores that is age equivalency and not the standard score but still get some information regarding that child.

The TOLD is for younger but you can give some information off that. The TACL can give you information and I like it increases the number of elements and you take a look at that. The TO and Boehm if you're looking at what concepts the teenager has. Then the token test. This is the one I wanted to talk about.

This test is probably not a little bit of a common test. It is an older test and obnoxious to give but I like it. It is for individuals, particularly your newly implanted who don't have a lot of language skills and if they have a limited vocabulary you can still take a look at how many key words they can pick out in a sentence so you're kind of taking a look at can they listen to a longer sentence utterance and understand some things in there or is it a language aspect in this takes away the language aspect. I don't know if you're familiar with the test but it has the different shapes, squares, circles, and I think actually just a square and a circle then the different colors and is big and little and, so, you know, it might be pointing to the circle, point to the square. And then it might be point to the

little circle, point to the big square. Point to the little white circle, point to the big green square. So you can see from two key words up to kind of six key words that a child has to understand.

So you really are getting a little bit more of a look at the auditory memory and then the last sub test, it adds in a linguistic and then you can see do they have the auditory memory? Can they follow the direction? What is the affect of language, what does it have on that? It starts to tease out those that don't have that breadth and depth of vocabulary but they can follow simple directions but they're having a hard time.

I do use this one sometimes just to get a sense of kind of how many key words in a sentence is say a teenager able to understand and it works well for as I said those who are newly implanted and don't have a lot of auditory skills developed or kind of that special education problem or population where they don't have a lot of auditory-oral skills developing, also.

So then if we do have to go to informal testing some of the things that we want to be taking a look at is articulation. You can just, you know, either do the Goldman-Fristoe or if they don't have a varied vocabulary using common pictures of common vocabulary. What you're trying to really look at is assessing the sounds and sequences that they're able to use,

receptive language, looking at their auditory discrimination. Can they do pattern perception and can they discriminate between words with large sound differences and can they discriminate between words with smaller acoustic differences? They identify key words in a sentences? That kind of talks about the tone test. Can they understand a paragraph of information? Really if they're starting to understand a paragraph of information, I would say that you could probably do more formal testing and then expressive language really just want to look at how verbal are they. Are they using their voice? Are they using verbal words? And are they using sentences or just doing more telegraphic utterances and are they using grammatical structures in there.

I want to quickly do expected outcomes for the four different groupings and then the last part I want to talk about more of the therapy tips which is really the practical aspect of that.

If you know me you have seen this before. I like to use my auditory skills pyramid. I'm always looking at in terms of listening skills do, they have awareness, that is Level 1. Level 2, do they have pattern perception? Level 3, do they have auditory discrimination of sound differences? Level 4, are they identifying key words in sentences or really up at Level 5, the processing comprehension aspect? So that is what we're going to talk about in terms of outcomes.

For one and three, the groupings one and three, I'm going to explain what they are. Remember grouping one was those teenagers who were either newly implanted or coming to implantation because of progressive hearing loss or sudden onset hearing loss. These teenagers are really auditory-oral communicators and, so, if they're just new to their cochlear implant or getting it is what going to happen is that they will acquire their current level of auditory skills within a few months. They need to go back and kind of practice those skills a little bit and they're not listening with a different system. You know, first it was with their hearing aids and now an implant. It is going to sound different but they should be able to carry over the skills that they learned previously to do it with their cochlear implant. And without the cochlear implant they would not be able to achieve, maintain or hopefully even increase their auditory listening skills given the level of the hearing drop and what they would have with their hearing aids at this point.

The goal is to reach age-appropriate skills in auditory and then also the third group which was those teenagers that have had their cochlear implant for quite a while and are good auditory-oral communicators is that they reach age-appropriate skills in auditory speech articulation and language given age-appropriate information and I think that is important because I have seen quite a few teenagers that I've worked with that really are at the higher levels of the pyramid

working but on processing and comprehension but when you really look at it closer it is with simpler information. They're not really -- they're listening to paragraphs of information but it is really not age-appropriate information and so we really want to look for gaps and make sure that these teenagers can achieve as high of skill as possible. So we want to set our bar up at age-appropriate information for them.

And we know for these individuals a cochlear implant is going to require less energy than if they were to be using hearing aids if what is termed in the past as the golden hearing aid users.

And then expectations for the other two groupings, so remember Group No. 2 was the teenager who was really more of a sign language communicator and has decided that maybe they want to try to develop some auditory-oral skills as a teenager and then the 4th grouping was the teenager who has had the implant for a while but has other issues and so is really more of a sign language communicator.

For these individuals, our focus is going to be on developing functional skills and there is going to be quite a range in here. So more of the low level range, it would be that they have more understanding of stereotypical or routine phrases that might be used at home or in the classroom. You know, it is going to be more of a limited vocabulary. If you think of the

pyramid and you draw a narrow column down the middle of the pyramid then you can see that these individuals can learn awareness. They can do pattern perception. They can get some word discrimination. They can follow some sentences with key words. But you have to be careful because it is with that narrow vocabulary. It is not with the breadth and depth of vocabulary but with narrow vocabulary.

Higher level functioning skills, they can develop some more auditory-oral skills to assist in sign communication and they're understanding some simple phrases. As I talked about before, with the more narrow vocabulary. Maybe they'll have more intelligibility and maybe they'll have longer sentences and they're signing with all their words but not like in, of, the and those kinds of things and we're not going to expect that their auditory skills will be age-appropriate but at least hopefully they can develop some auditory and oral skills to assist in this communication.

And then the last thing that I want to go through probably the last 10 or 15 minutes here is just the auditory goals, the therapy goals. As I said earlier for purposes of this talk I'm just going to keep it really to auditory goals.

Okay, just a quick overview. This is the last slide, I promise, with the one, 1, 2, 3 and 4, and you're not going to have to be confused any more. But for the teenagers again who are

onset of hearing loss or progressive hearing losses who have developed auditory skills, the goal for them is we're retraining skills. We're going to take from what they have learned with their hearing aids and do it with the cochlear implant and we want to work on increasing their discrimination abilities, increase their ability to understand lengthier and more complex information and if need be kind of clean up some of the articulation. So if they were not hearing the high frequency sounds and dropping off S's at the end of words maybe they can hear the S and we want to have them add that back on.

For the Category No. 2 and 4, remember these are really the individuals who do not have very well-developed auditory-oral skills. We're going to work more on functional skills as I talked about. Just can they understand in context or routine directions and maybe they'll have some fair intelligibility and shorter utterances and for our third category, teenagers implanted younger and considered auditory-oral communicates we want to just continue to maintain age-appropriate skills and expanding skills if need be where we're really looking for the gaps for these individuals and then trying to fill in the gaps if need be with that.

So specific therapy, you know, we're all starting off with awareness to sound. I'm not going to worry about that. I think you know how to do that. If need to work on some of the

retraining, the newly implanted, it is using familiar phrases. And writing them out. So instead of doing hop, hop, hop versus go, that is for the younger child we want to write some things out and I sometimes do, did you do your homework versus time to eat versus maybe their name. So really much more functional skills that keep in mind functional, functional, functional. That is what we want for these individuals.

And then the discrimination. And this is where we want to know they hear the loud sound differences and smaller ones and the words coming closer together ment so if you have shoe versus ball then it is going to be ball versus dog because that is even harder and then it might be cat versus cut for a vowel only or a consonant by place, manner and voice really bringing it together. And it actually doesn't hurt to even with the teenagers who are very auditory-oral who go back and kind of boost their auditory discrimination skills once in a child and make sure that they keep up on doing this fine listening and some activities for this you can do it at word level or even more in a sentence level, tracking where they repeat verbatim is a good activity for those I think we want to boost, we call it iPod therapy where they listen to a song on their iPods and they can download the words to the song and have them listening to it to see how much they can pick out the lyrics and pick out the words while they're listening to the music. That is a little bit of a higher level but for more refined boosting listening skills that is nice activity to do.

I think when we're doing some of the tracking, don't always use simple. Again I talk about keeping it more age-appropriate. The other day I was working on this with a teenager and sometimes they come to it with a lot of language. If they kind of get the gist of the world and you don't know if they heard the whole word clearly or if they came up with a word to figure it out. I was trying to come up with less vocabulary for her to see if she could come up and I chose onomatopoeia and she came back with I want a cake. I thought aha she's definitely trying to use language to figure out what I said. That was a real auditory discrimination task that we could work on so four, five, six syllable words. Which helps build vocabulary, too.

Another activity for this that I think can be kind of interesting to do text messages. I don't necessarily use them but there is a lot of terms that they use in there. So you can do an activity where you just say the things like BFF and then they have to say best friends forever; or LOL. So they're really listening. TMOR is tomorrow. Functional is maybe they can help teach you some of the text messaging and that is a fun activity or auditory discrimination.

Level 4, identification, this is the keyword and context. This goes back to the token test and we're looking at how many key words can they pick out? What you want to look for, not

only is the key words is what kind of vocabulary are you using? Are you using simple vocabulary or age-appropriate vocabulary? You want to look at is it shorter utterances or longer and how many key words can they pick out with that?

Some of the activities in the classroom, you know, give the papers out and list three different kids that they have to get it from and collect the papers from all the children in the last row. Just kind of being creative. Giving simple directions but with some specific key words to be able to follow that or in therapy, you know, you can do or get out your math book and turn to page 29 and do problems 12 to 16. That is at least three or four different key words that they have to do in that or get out your history book and read the first two paragraphs. So check for comprehension and did they understand that.

One of the things to look for in the classroom is when the teacher is giving these kinds of directions, do you know that this is the child who looks to the person next to him and follows what that person is doing or this is the child that has gotten it on their own, things like that.

Then we get into our processing comprehension and we want to do advanced vocabulary development and we will talk about that in a minute. Auditory word play, doing the word webs. Are they answering simple questions and understanding sentences that have longer details and key

words and elements which can put some parts of the processing in it and are they able to start to listen to short paragraphs? How much chunking can they do with their listening skill?

Activities for vocabulary it is use class content. If at all possible whenever possible use class content. And that includes adding word webs. So if the vocabulary is weather, you talk about, you know, a super ordinate to that and it might be under the category of climate and subordinate to that under weather is the different kinds like windy, sunny, humid, frigid and you can really expand to get that breadth and depth of vocabulary going. Sentencing with elements and details in the classroom and you might want to do -- if you're going into groups for things think of an auditory activity in the first group I want everyone wearing something other than a shirt to stay warm. You have to think about those wearing a jacket or a vest go into that group. It is just kind sp really auditory vigilance on the teenagers part to see if they're paying attention to all the details.

And then, you know, answering questions about a paragraph. Well, lecturing, constantly, you know, there is tons of paragraphs that are given to the teenagers through lectures and just making sure that you check comprehension but not did you understand because they're going to say yes but making sure that they can repeat some of that back or give

some details.

And then when we get into the higher level, it is answering all kinds of questions, getting more complex information and more complex questions and increasing cognitive language skills and I'll get to it in a minute. And then following conversations with a topic that is known and just open-ended conversation.

When we talk about the cognitive language skills all the higher level we want to get into that linguistic paraphrasing and problem solving of all these things. I'm going to give a few examples of these quickly.

When we're talking about longer paragraphs, again that goes back to the class curriculum. That goes to making sure are they following along in the lectures and do they understand it? And this is where it is very important to have collaboration between the classroom teacher and the support service providers to really know are we talking about a teenager who is language and their ability to understand lengthy information is age-appropriate or a little bit of a simpler level yet and we need to continue that.

Maybe from reading assignments and asking them and, you know, if you're reading a short story and you say that the character walked into the room slowly with his head down and

his shoulders bent forward, then you could say how is that person feeling? So they have to infer some information from that. You can see that is not simple inferencing but we want to get to more advanced inferencing.

Interpreting and prayer phrasing is a nice activity and that is if you have got two students that are in a class and you're working with them and they're taking information from a lecture then when you're pulling them out have the one student then be the teacher and reiterate the lecture. It is a great opportunity for both of them to relearn the information but can they interpret and paraphrase what was going on in the lecture. A lot of these activities are going to be receptive skills and expressive skills.

Math lends itself well to problem solving because there is a lot of language in math problems so going over that.

Missing information, working on that is setting up scenarios being creative. We're going to have a party on Friday. I want everyone to bring something to eat. The party will be in the gym. They have to kind of determine what information is missing and what else do you need to do?

Another great activity to do for this is writing an advertisement, you know, say that the child needs to write an advertisement about Nike shoes and you can give a little bit of information

and getting the teenager to say, you didn't talk about this. You didn't talk about that. What parts are missing? So really getting that going.

And defining and explaining. That again lends itself into the vocabulary. Taking advantage of all the opportunities when you're dealing with vocabulary, the super ordinate, subordinate to go along with it, synonyms and antonyms and things like that.

If you read quietly for 10 minutes, use that and we'll give you extra art time and identifying and maintaining the different ideas and this is going back to maybe particularly in the literature in the lectures making sure that they understand and comprehend and I know when I was in high school I had a literature class. We had to read a short story then answer questions about it. This is where you can take that. Instead of having the teenager read the story visually, present it auditorially and then ask the questions and what were the topic questions and the sequence and the title and the conclusion. Now you have taken their homework or their task of reading the short story but you have made it an auditory activity which is great practice for them.

In terms of humor, just again discussing it, pointing out sarcasm, particular notice teenagers is going to be important figurative language when opportunities arise and not just the

idioms and metaphors but also the slang and the terminology that teenagers are using which for the life of me this ages me but I cannot think of something teenagers use now but thinking of the common phrases that they use it really has different meanings and making sure that our teenagers know what those meanings are so they can use them.

Then to following conversation with a familiar topic to an open-ended conversation and just a couple of things. I talked about the iPod for tracking. I think with the following open-ended conversations sometimes practicing an interview. Where the child or sorry the teenager is going to have to interview for a job because this is all functional and eventually they're going to have to so you can be the employer and you're just throwing out different questions for them to respond to and so that is right there you're doing a conversation practice and just doing it through audition.

And then telephone practice. I think that is another important thing with teenagers to work on. These are the higher level skills. And I know now adays everything can be done on the computer but it still is good for telephone practice. I know I have done things in the past (audio difficulty),

>> Melissa: MaryKay, could you check microphone real quick again for me? Okay, MaryKay if you can stop your mic and restart it, that would be great. Okay we're going to get her microphone back on, folks. Thank you so much.

>> MaryKay: Okay, I'm back. I apologize for that. I did not realize on this computer that as a call came through it would cut me off. I -- it would cut me off. We learn as we go. The last couple of slides Nucleus has a great program. I don't know if Donna had a chance to talk about that with you. Four teenagers and it goes through some of the different levels like sound awareness to discrimination and comprehension and gives different topics to talk about. So that is great.

Using class curriculum, I put a couple of authors. Anybody that works on anything with auditory processing such as like the HELP books is good. Going to educational sites like SuperDuper language systems and magazines and newspapers using current information is wonderful. If I'm going to work with a teenager that day and I'm on the train, I have the newspaper in front of me I cut out articles just short little articles and I'll use that as an auditory paragraph for them to listen to and then for me to ask questions about because it is current and it is relative. That always works out very nicely.

And then just concluding, teenagers are unique. We have different roles that -- with them that change over time. It is different working with a teenager than it is with a young child. Teenagers and their skills are going to differ widely and they are different. We want to know what we're working on and setting goals appropriately and then just make the materials appropriate and interesting with that. Okay, so, Donna I think

I'm going to turn it over to you.

>> Donna: Thanks, MaryKay, that was a really great session with a lot of important information. If everyone could just go ahead and type any questions that you have for MaryKay in the Q-and-A section, she'll be looking at those right now and answer them. I'm just going to take you through some very brief slides on upcoming events.

We have our next event for HOPE on March 13th and then skipping down to April 22nd, we have a parent/teacher talking about first grade students and I think that is going to be a really fun one to attend as well. So that is what is coming up .

Like always we have 45 archived sessions available if you want to catch some of the great sessions that have gone on in the past.

I really want to encourage everybody to sign up for HOPE e-news and you can do that by just going to the HOPE area of the Cochlear website. I'm going to go ahead and send everybody who attended today the last issue which was on cochlear implants and teens but we have topical issue that we cover each time along with upcoming events on new interests and just to let you know, we have a tour going on now, a live workshop tour for early convention professionals. We have four sites. We are in Miami yesterday with a great group of people at that one with our featured speaker Don Goldberg

and we also will be bringing in Heather Whitestone McCallum, Miss America 1995 to do a really wonderful segment with some kids from the region in each of these cases.

That is all in the HOPE area of the website and again if you're in the neighborhood we hope you'll join us at one of those.

Upcoming if you like MaryKay at this, you'll love her in person. She'll be doing an all day session that actually goes until 5:00. I have it there until 3:30. But it is the West Virginia meeting and the information is right there and you can get more information about it from Barb Buck at Cochlear and I have given you her contact information. With that I'm going to turn this back to MaryKay for some Q-and-A.

>> MaryKay: Okay, I was a question. Did you say you used a screen for your formal testing? No, I don't. I actually try to give the formal testing in the natural environment so that means it is auditory with speechreading cues. So for formal tests again because I'm trying to think what was specifically am I looking for and I don't use a screen for that.

Then there is a question are there assessment materials that have been standardized on the DHH population, deaf and hard of hearing population? I guess the answer is probably yes but no. Not to confuse you. It is such a mixed bag of apples and oranges comparing the population. Is it severe hearing loss or mild hearing loss? I don't use any of those

tests. And for children of cochlear implants I kind of find sometimes that it overscores them too well.

My other rationale for using test on the hearing population is if they're in the mainstream those are their peers and those are the individuals that they're competing with in the classroom and if they're going to be in the 9th grade classroom I need to know they have the language to follow along 9th grade level information so I use tests that are normed on hearing children because at this point that is their peers. I hope that makes sense.

Could you repeat what you said about caveats you mentioned one reporting on tests? Yes. Because they're tested normed on hearing children I always say formal tests for normal hearing children and therefore results should be interpreted with caution and then I usually also add (audio interruption) added protocol as I talked about I might repeat a question versus on the standard testing protocol you're not supposed to repeat. But I kind of am looking at-will it give me the information that I'm looking for? Does it test the information that it is supposed to be testing? So that is -- those are the kinds of two statements that I make so people are aware that I know their tests are normed on hearing children and I usually say results give you good information regarding strengths and weaknesses or the skills of the child.

Give me one second to go through the questions here. Penelope said for disordered phonology I believe it is the CAPES would be more complex analysis so thank you. I wrote that one down. I'm going to check that one out. That is another test to add to the list of tests.

Okay, this is a longer question and it is going to take me a second. It is a long, long question. It is not really a question but more of a statement. Sorry about that. I won't answer that one for right now.

I don't know it says please represent the second caveat. You cut out. I'm not sure if it was now or before. The second one being modifications may have been made to the standard testing protocol. That one. With would you do if a teenager for some reason is just not really motivated?

That is a tough one. I don't know that I really necessarily have an answer to that one. I think a lot of that is discussing what do they want? It really is again taking the responsibility from the power adult or the parent and putting it on the shoulders of the teenager. This is their life. This is their role identity. This is what they need to do. What do they want? What do they want from this? If they say that they want, you know, these good skills well then you have to work hard to get those skills. And in discussing that and having a frank discussion about that but really talking to the teenager and telling them it is their

responsibility. They're going to get out of it what they're going to put into it. So if they're disappointed in outcomes, that might be something that they need to really focus on.

The groups 2 and 4 those are the individuals that are more sign communicators and have not developed a lot of auditory and oral skills and are teenagers at this point.

A range of time for the expectations to be achieved, is there? Not necessarily. Again it is more individualized and some are going to go a bit further than others. I think one of the things that you want to do though is focus in on the skills like on the pyramid focus in on the bottom skills and start moving your way up the pyramid. Remember it is going to be that narrow column, not the breadth and depth of vocabulary and one of the things that you have to watch for is if you have got pattern perception, how large of a group are they doing it in? Can they move into a more open set with that or that is really difficult for them? So it is looking at where they're plateauing but not necessarily a specific range. Some are going to get to it a little faster than others and some are going to be more motivated to work on it more than others but I think over time you want to look at when do you feel there is a plateau of skills that are appearing?

Just a few more questions. Sorry I'm not as fast on this.

Okay. I got that one. Clear off the screen here. Which test

would you give a qualitative result or do you give the standard? See if there is any more -- if I'm doing formal testing and I can give standard scores because I've adhered enough to the protocol I give standard scores. Then when I talk about the formal test but not age-appropriate, on some of those even though you don't get standard scores you can still get age equivalencies and I will report those but I always do a narrative describe what each of the sub tests measure and what this individual did and what that means. So there's always qualitative and standard. I'm not one to give standard testing and then just report that. It is your standard scores but it is also your professional judgment. So you might even give a test where a child scores -- a teenager scores within normal limits but you know that there were certain areas that were more difficult for that child. So you can talk about that and I always do and put that in there.

So even if standard scores say within normal limits, you might see that there are certain areas, particularly in some of the deep structure language and you still might be able to say as your professional judgment there is mild language delays. So I do a combination of both but also for comparison sake when I can use standard scores I like to use standard scores but with modifications noted.

Someone said thanks that is what I do, too. You're welcome.

Which age norms do you use for students on formal tests?

Not their age. What you do is you look at the raw score and it will give an age equivalent. That stays the same throughout the whole test. So -- throughout the whole test. If you're looking for a raw score for a child that is 8 years of age, that raw score is going to be the same age equivalent as that same raw score for a child 13 years old and gave it.

Therefore, any raw score will or should yield the same age equivalent and that is how you use that. That answers the question about which age norms do you use for raw scores on tests that are not normed. Or you cannot use that are not formal tests -- that did not make sense -- that are not age-appropriate is what I mean.

How do you decide the teen has reached a level you don't think they need speech? First of all, if you see that -- No. 1 you can look for it if it is -- I'm going to repeat that question again. How do you decide the teen has reached a level you don't think they need speech or language serves any more? If -- services any more? If they score within normal limits and qualitatively doing good in the classroom because sometimes in a formal testing situation or quiet environment that is more structured they do well but how are they doing in the classroom? You need to look at both of those. That is one way.

The other way is looking at a plateau of skills and have they reached their potential which is a little bit more difficult kind of estimate but are you still working on the same level skills that you did last year and you don't see any change happening so kind of looking at both of those. Have they reached kind of age-appropriate or have they really reached their potential and maybe it needs to be more of a maintenance of skill versus an acquisition of further skills that may not be possible for that teenager.

I think I'm done to two questions but this says can you show us but I'm not sure -- hopefully I have answered the question and I think that had to do with the age norms.

Okay what about the teenager who is implanted at age 13? Well, I think that you probably want to first go back to some assessment of the auditory-oral skills for that teenager and kind of look at what grouping that it talked about that one, two, three, four grouping, probably the one and two, where do you think that child fits in? Do you think that child is a teenager who has developed some nice auditory-oral skills? That is going to drive what some of your goals and expectations are going to be. Or that 13-year-old teenager who is first getting their implant do they not have any auditory or very limited auditory-oral skills than that and that is going to determine what you want to work on; or then basically they're going to fall somewhere in between and it might be a teenager who is

-- who doesn't have great auditory-oral but they have some developed auditory-oral and they might still be that second grouping but more high functioning (audio difficulty).

>> Melissa: Okay.

>> MaryKay: I would go back to kind of determining what they have to -- it is more that they are more independent but that doesn't mean the parents there are at all completely. It is that cheerleader and side-by-side working and particularly with the carryover but it is trying to put responsibility and motivation back on to the teenager for them to really develop those goals because they are the ones who really have to have the ownness or have this work for them in order (audio difficulty) and I think that was all of the questions then. So thank you very much for hanging in there with me. I very much again apologize for cutting out on you twice during this presentation. That won't happen again now that I have figured out something to not be doing on this computer. I appreciate you hanging in there and hopefully this was something that was worthwhile for you. And we're over time. I think I'll let you go from here. Again thank you very much.

>> Melissa: Thank you, MaryKay. Everyone is welcome to log out of this session for today. You did a great job and thank you all for attending and I'm about to close down the session.

>> Captioner: Thank you.

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