New cochlear implant referral criteria for adults

Dr. Terry Zwolan

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Dr. Terry Zwolan, former Director of The University of Michigan Cochlear Implant Program and current Director of Audiology at Hearing First, recently published a study that evaluated when to refer patients for a cochlear implant evaluation. We wanted to understand more about the study findings and what this means for hearing healthcare professionals, so we interviewed Dr. Zwolan to learn more.

WHAT PROMPTED YOU TO CONDUCT THIS STUDY? WHAT LED YOU TO LOOK AT THE DATA?

We do a great deal of outreach to professionals across the state of Michigan, and they would frequently ask us "How do I know when it is best to refer someone for a cochlear implant evaluation"? In all honesty, we were not sure what to say. We recognized this was a very important question, and we, therefore, decided to look at the data from our candidacy evaluations in order to come up with an answer to this question that was evidence-based. As part of that analysis, we looked very closely at the audiograms that were sent to us by referral sources, and that encouraged us to focus on measures that they are actively using in the clinical care they are providing to patients. This resulted in a close examination of the pure tone average of the unaided thresholds as well as the unaided word recognition scores.

If your patient meets any of the criteria below, consider referral for a full cochlear implant evaluation to determine candidacy.*

AUDIBILITY	SPEECH UNDERSTANDING
Greater than or equal to **60 dB**[1] (in the better ear)	Less than or equal to **60%**[1] (in the better ear)
Pure Tone Average (0.5, 1k, 2 kHz)	Unaided Word Recognition Score

** This provides a recommendation only of when an adult may be referred for a cochlear implant evaluation, but does not guarantee candidacy based on indications. (Only for adults).*

1. Zwolan TA, Schvartz-Leyzac KC, Pleasant T. Development of a 60/60 guideline for referring adults for a traditional Cochlear implant candidacy evaluation. Otol Neurotol 2020;41:895–900.

WHAT SURPRISED YOU MOST ABOUT THE OUTCOME OF THIS STUDY?

We were quite surprised when we determined that the number 60 was an important number both in regards to the pure tone average and the unaided word recognition score. When we looked at all of our data, we determined that 92.3% of patients who met traditional candidacy had a better ear unaided word recognition score that was less than 60%. Similarly, we determined that 95% of our patients had a better ear PTA (based on an average of thresholds at 500, 1K, and 2K) that was greater than 60 dB HL. We were pleased with the numbers because we feel the 60/60 is easy to remember.

WHY IS IT IMPORTANT THAT HEARING HEALTH PROFESSIONALS UTILIZE THESE CRITERIA?

As hearing health professionals, it is important for us to consider the 60/60 when we are evaluating someone's hearing because so many patients who are candidates for a cochlear implant are not being referred. Unfortunately, this means there are many patients whose hearing loss is not being treated optimally. Additionally, research has shown (and my personal experience with patients agrees with this) that patients chances of a good outcome are significantly better if they receive the device before the loss of all functional auditory skills. The best thing about the 60/60 is its simplicity. If the patient obtains a word recognition score less than 60% or has a PTA greater than 60 dB HL in their better hearing ear, it is important to consider them for a cochlear implant (CI) evaluation. We are hopeful this guideline will simplify the identification process. Although meeting the 60/60 does not guarantee a patient will meet indications for a traditional cochlear implant, it provides the audiologist with information that supports such an important referral. Patients can now be informed that there is a very good chance that they may be a candidate for a cochlear implant if they meet the 60/60 criteria.

HOW CAN HEARING HEALTHCARE PROFESSIONALS USE THIS CRITERIA TO IMPROVE PATIENT OUTCOMES?

If the patient obtains a word recognition score less than 60% or has a PTA greater than 60 dB HL in their better hearing ear, it is important to consider him/her for a CI evaluation. In fact, if they meet these criteria, there is a high likelihood that they will qualify for a cochlear implant. We found the 60/60 accurately identified 82% of the candidates that were seen in our clinic for a CI evaluation. Although this also meant that it resulted in an 18% miss rate, we felt this was acceptable since the patients who fell into the "miss" category left the appointment informed and knowledgeable about cochlear implants. Many of them returned to their dispensing audiologists to seek new hearing aids, and others returned later for a re-evaluation that indicated they were candidates. No referral is a bad referral, and people who ultimately receive a cochlear implant are so grateful to the person who referred them. Many of the patients we see today continue to use a hearing aid in their contralateral ear in conjunction with their cochlear implant. This has provided an exciting opportunity for the CI clinics to partner with dispensing audiologists to maximize patient outcomes.

To learn more about how to refer, visit our website: www.cochlear.us/when-to-refer