

Maximize Patient Benefits from Advanced Hearing Technology

By Kelly Wolfgang

As artificial intelligence and machine learning continue to make advances in hearing technology, one element must not be forgotten: the patient. Technological breakthroughs continue to impress, but specific attention to a personalized patient experience must remain at the forefront. With greater advancements than ever before, audiologists today have the opportunity to improve patients' hearing outcomes in an unprecedented way. But how can they maximize this opportunity to bridge the gap between patient needs and complex technology and pave a clearer path toward optimum hearing aid satisfaction?

TECHNOLOGY REVIEW

"My practice has changed over the past three years to where I spend as much time discussing the patient's hearing loss as I do the technology that goes with it," said Jessica Galatioto, AuD, the director of audiology at Columbia University Medical Center. With the breadth of technology that has emerged in recent years, hearing care professionals are now undertaking more device advancements than ever before. Advanced technology such as Oticon's HearingFitness™ and Starkey's Livio provides whole-health features like step tracking, Oticon's Xceed is one of several devices to offer balance scanning and fall detection, the Olive SmartEarX is self-fitted, and nearly all devices now offer connectivity to mobile apps that offer a variety of in-app features such as speech-to-text translations.

"The majority of companies have hearing aids that offer most of the technology available, including advanced signal processing, automatic noise reduction, and of course, improved speech detection," Galatioto said. "In addition, most advanced hearing aids connect to secondary devices such as remote controls and hearing microphones, and many offer rechargeable options." One feature that patients find especially valuable is the ability to set multiple programs to specify settings for unique environments such as restaurants, movie theaters, or airports. Some devices even allow geotagging of specific environmental settings that automatically adjust when the user arrives at a tagged location such as their workplace or the doctor's office.

STRATEGIES IN PREQUALIFYING & EVALUATION

With the number of advanced features available to patients, successful adoption of hearing devices will depend on the



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personalized care delivered to each patient. To gauge a patient's ability to use advanced technology devices, some audiologists prefer to conduct prequalifying surveys. "Obtaining a simple history and focusing on the patient's preferences and comfort level with technology is extremely helpful," said Janaan Moore, AuD, a clinical audiologist at Michigan Avenue Hearing Health. "This is a very individualized process and there is no single question that reliably predicts whether or not the patient will like—or even use—the most advanced technology, so we rely heavily upon the experience of the hearing health professional as we listen carefully to the patient's preferences and desires. This is the key to getting it right the first time."

In addition to surveying the patient, Moore also provides device demonstrations, allowing patients and family members to make the best decision about their specific direction of care. "Spouses often have great insight into the patient's capabilities or weaknesses, or can offer objective perspective and examples based on their direct observations and experience," she said. "Having both the patient and a close family member or caretaker present is ideal for making this important decision."

In Galatioto's experience, the key to patient satisfaction with advanced hearing technology is knowing what makes sense for the individual. "Rather than prequalifying a patient

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solely based on the level of comfort with technology, I try to get a true picture of the patient and her or his everyday life," she said. "Many patients have done research prior to coming in for an appointment. Patients who are smartphone users and tech-savvy often come in requesting a hearing aid that connects to their smartphone, Bluetooth, and TV." Rather than using that information to prequalify patients for the most advanced technology, Galatioto asks patients what they hope to get out of a hearing device and where they have the most trouble hearing. "The hearing aid is just one tool," she said. "First, I try to find the best hearing aid to fit the patient's needs, then I look at what connectivity we can use to give the patient the greatest overall experience."



Jessica Galatioto, AuD

"We need to provide extensive counseling on how to identify hearing loss, make the most of hearing aids, and how to cope with the change."

Conversely to those tech-savvy patients who desire the latest technology, some patients—especially the older patient population—may be hesitant to adopt the more complex features of advanced hearing devices. "Obtaining an optimal result from a hearing aid and related smart technology or accessories is not a given and is not always straightforward, and patience—sometimes trial and error—is needed," Moore said. "In particular, depending on the age of the patient and the extent of prior exposure to modern technology (or even the internet), the patient may struggle a great deal, even when adjusting the settings on the hearing aid, or even the volume."

For some users, the more complex features of hearing devices, such as selecting specific listening environments, may be a barrier, especially if mild cognitive decline is present, explained Moore. "In that case, it is sometimes better to simply deactivate special programs and simplify with only one 'all environments' setting option. This can avoid confusion by avoiding having the wrong program activated in a particular environment."

However, some would argue that the benefits of advanced hearing technology are so broad they can provide benefits to patients at all levels of technological comfort. Kelly Dyson, AuD, CCC-A, the owner and audiologist at Suncoast Audiology, said she prefers to forego a detailed technology prequalification. "Even if a patient is uncomfortable with technology or incapable of using it, they could still benefit from the advanced technology the hearing aid is performing on them," she said. "For instance, if a patient with dementia or Alzheimer's is provided with an advanced hearing aid, they may not be familiar with the technology, but they will hear beautifully. They won't be bothered by the technology, they will just enjoy

the interaction and the ability to communicate. The hearing aid itself is so advanced that the patient will benefit even if they never do anything to configure the settings."

MITIGATING CHALLENGES

Of course, the benefits of such complex technology come with a set of challenges for both audiologists and patients. A particular challenge Galatioto has found is that with such advanced technology and a more expensive product, patients expect they will have normal hearing. "Patients often believe that if they get the most advanced hearing aid, they will have normal hearing, and that's just not true," she said. "The hearing aid, no matter how advanced, is just a tool that delivers a signal. We're still working with an auditory system that is damaged." To help patients feel satisfied with the technology and care, Galatioto said it's important to set realistic expectations. "People expect hearing aids to work the way glasses do, and even though advanced technology care is allowing people to have better hearing than ever, we're still relying on an internal system that's damaged," she said. "What audiologists do really well is that we look at a person's overall hearing loss, prescribe appropriate products, set realistic expectations, and work with what we have."

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Janaan Moore, AuD

Galatioto emphasized that as an audiologist, she is not just treating hearing loss on paper, but treating a patient. "We're not only here to figure out what hearing aid is best for the patient – we are here to treat hearing loss," she said. "It's not as simple as giving a patient a device and sending them on their way. We need to provide extensive counseling on how to identify hearing loss, make the most of hearing aids, and how to cope with the change." For some, that counseling comes through audiologist-provided courses. "We have what are called rehabilitation classes, where we spend 30 minutes reviewing a device and practice using it when a patient comes in for hearing aid delivery, fitting, and programming," Dyson said. "By the time we have gone over the device, patients are often exhausted, so we also provide them with a brochure detailing how to tell the right ear device from the left, how to clean it, how to put the battery in, and other details and tips that can help in their daily lives."

In addition to device counseling, Dyson recommends that patients contact the hearing aid manufacturer when her office isn't open. "Most manufacturers have audiologists on call for

patients who need support for things such as Bluetooth pairing off-hours. It's important to keep in mind that this might be the patient's first-ever serious dive into the use of a smart device, and the skills needed go beyond receiving a simple phone call," she said. "Fortunately, more manufacturers have simple how-to training videos and YouTube links as well as old-fashioned owner's manuals or brochures with large type and simplified drawings and figures," she said. For further support, Galatioto recommends that her patients join support groups such as the Hearing Loss Association of America, where they can meet other hearing aid users. "Those peers that have hearing loss can provide an education that I can't because I'm not a hearing aid user," she said.

INPUT FROM PATIENTS

From a patient perspective, the care audiologists place into personalizing device and accessory use, educating patients, and providing continual support is invaluable. "I can't stress enough how enabling these devices are. Without them, I couldn't hear everything and never knew if I've missed some information," shared Adrian Try, a writer and an editor at Software How. Try, who suffers from tinnitus and hearing loss and uses ReSound hearing aids, said the technology has enabled him to enjoy things like listening to music and podcasts and has even improved his professional life. "Listening is hard work, and it's embarrassing to have to ask people to repeat something, especially if they've already repeated it. This technology makes me feel like I've joined the real world again," he said.



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**Kelly
Dyson, AuD, CCC-A**

Melissa Scott, a patient who has used hearing aids since age 2, said that she was historically stubborn in adopting new hearing technology but has since enjoyed embracing the advanced care recommended by her audiologist. "My hearing loss has been profound since birth and grew progressively worse until age 7, thus making me completely dependent on the use of hearing aids," she shared. "I was extremely comfortable and dependent on the level of comfort that was normal for me. Any time I would get a new aid, it was a torturous transition period. But my audiologist informed me that the advanced aids would be better for me, even at age 51, and that with constant use, my life would be more comfortable and I could participate more in social settings that I have been avoiding such as restaurants, listening to music, phone calls, and group conversations."

Scott found comfort in the fact that her audiologist concentrated on all the features of the hearing aids and the ability to read analytics of the usage. "The technology embedded in my aids is mind blowing," she said. "I can preset sounds to almost every situation, can control the direction of sound, and can even leave my phone somewhere and be 40 feet away and can hear everything that is taking place in the vicinity of my phone. This is like spyware."

PERSONALIZED CARE

Moore said that such personalized care is the result of skilled audiologists who value patients and their hearing experience. "All of the best medical care relies heavily upon listening," she said. "Listening carefully and clarifying as needed the patient's needs, wants, desires, and preferences. Audiologists pride ourselves on being outstanding listeners, thus achieving a best practice standard for each and every patient." By focusing on patients' needs and how technology can benefit them, audiologists can marry the best advancements to the best personal experience. "Bottom line, advanced technology allows optimization of the hearing experience in all types of listening environments and enjoyment of life is optimized," Moore said.

Galatioto added that as an audiologist, providing patients with the best possible technology and care makes a true difference. "There are patients I've known for 15 years, and it's great to go on a journey with someone and be responsible for their hearing and life," she noted. "Patients trust us to help them hear the best they can. It's not just about treating hearing loss, it's about treating the patients." 