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Toward Consensus

The movement of our profession to the AuD degree had at its basis the expansion and enhancement of clinical education. Many of us grew up under the old educational model in which universities took responsibility for classroom education and for some level of early clinical exposure. Clinical education was completed with nine months or so of supervised clinical experience, often in a setting far removed in many ways from the academic institution granting the degree.

This model, of course, was based on that of teacher preparation, with didactic education in the university classroom and clinical education in the school classroom. Although the student-teacher model may have been appropriate in the early years of speech-language pathology education, it became increasingly inadequate in addressing the modern, professional preparation needs of the newly practicing audiologist. The primary reason that the old model was no longer relevant was that the most important component of the clinical preparation of practitioners was not under quality control of the university and the accreditation standards that guide it. As the importance of our profession grew, it became apparent that we could no longer afford to leave such an important aspect of education to chance.

When AuD programs began to develop in the 1990s, the faculty faced the daunting challenge of trying to create models for clinical education within their academic units. The early adopters of AuD education had to develop their own creative strategies for clinical relationship building to ensure quality rotations for their students; few pertinent guidelines existed. Out of their experience grew the idea of the 4th year rotation, one in which the student would be immersed in the daily activities of a busy clinic or multi-clinic setting. These programs began to build bridges with their clinical faculty to ensure mutual benefit for the tripartite partnership of the clinical educator, the university, and the student.

Meanwhile, progress in these successful programs was not necessarily translating on the national level. Standards, both academic and professional, fell significantly behind the innovative changes in professional education that some universities were implementing. When classes of students began to spill into the 4th year clinical rotation, new challenges surfaced for both academic institutions and clinical rotation sites.

As issues relating to the 4th year rotation began to emerge, it became abundantly clear to the Academy’s Board of Directors that many were unresolved, and that a number of our members from both the academic and clinical communities held strong, seemingly opposing viewpoints. The Board members felt that the Academy could provide the opportunity for the different professionals involved in audiology education to come together and reach some level of consensus on the nature and requirements of externship education. As a result, in January of this year, the Academy hosted a conference on AuD education, with a focus on the 4th year externship, to try to build consensus on the most important issues and thereby provide unified guidance to AuD programs and clinical sites around the country.

More than 115 audiologists met in Reston, Virginia, to identify and discuss the issues pertaining to the externship. Audiologists from various practice settings, AuD students, and audiologists from over 35 universities were in attendance to hear invited and contributed papers and open discussion sessions. You will be reading much more detail about the outcome of this meeting in the various Academy publications. In short, six primary issues were identified—terminology, pre-externship standards for student preparation, standards for preceptors and clinical sites, university/preceptor/site partnership, extern status, and preceptor expectations—along with suggested recommendations where applicable.

Although it is clear that the process for reaching consensus is not yet finished, several aspects of this conference were noteworthy to me: (1) the profession came together to solve its own problems, a clear sign of any profession’s maturity; (2) there was apparent concordance on many issues that most thought would be contentious; (3) the models of successful university/clinic partnerships described during the meeting were quite impressive; (4) some university and clinical programs have made tremendous progress in externship development despite a dearth of collective guidance; and (5) collegiality reigned even among those with disparate points of view. I believe this conference served to build a framework upon which true consensus can be reached about our professional education programs. Forums for continuing discussions will take place at the Academy’s annual meeting in Salt Lake City and beyond.

A Forum for Strategic Consensus

Elsewhere in this issue of Audiology Today, you will be reading about progress of the Academy’s new Foundation, which helped sponsor the AuD conference. Based on the success of this conference, at a recent meeting of its Board of Trustees, the Foundation announced its plan to sponsor an annual Fall Forum designed to provide strategic guidance on compelling audiology issues of the day. If past is prologue, you might want to reserve your seat now.

Brad Stach
PRESIDENT'S MESSAGE
MARCH/APRIL 2004
The American Academy of Audiology Foundation reorganized in July of 2002 to become a stronger, more focused Foundation. With the endorsement and encouragement of the American Academy of Audiology Board of Directors, the AAA Foundation has developed a solid long-range plan focusing on ensuring the future of Audiology through research, education, and public awareness.

Meeting for several days at a Denver hotel in January, the Foundation Board of Trustees discussed and debated the long-range goals and objectives of the AAA Foundation. Under the direction of Barbara Packer, the Board’s primary goals for the next 3 to 5 years focus on education and research. The American Academy of Audiology staff is providing the AAA Foundation with the much-needed structure necessary to ensure that the Foundation goals, objectives and strategies related to education and research are implemented.

**Research in 2004**

The Foundation has recently kicked off a fund-raising campaign for 2004 to raise $30,000 to support the following research areas:
- 3 New Investigator Awards
- 1 Student Investigator Research Award
- 1 Summer Fellowship Award

**Education in 2004**

The Foundation was the major funding source behind the recent AuD Consensus Conference held in Reston, VA. This conference provided a forum for audiologists to discuss how they envision the 4th year AuD program should be structured. As a result of the positive feedback, the Foundation intends to hold an annual Fall Foundation Forum to strategize key issues facing the audiology professional. The Forum will always be a strategic session, rather than a continuing education session.

**Support Your Profession’s Future Through the Foundation**

With 100% participation from the AAA Foundation Board of Trustees and the Academy Board of Directors, as well as many past leaders of the Academy, over $16,000 has already been raised toward this year’s goal of $30,000. You can be an important part of the future of the profession of Audiology by supporting this campaign. Your support will provide funding for research and education. Please stop by the Foundation booth at Convention 2004 and make a donation or go to www.audiologyfoundation.org and download a donation form. Your contribution, no matter what size, can make a significant impact on the future of your profession.

The AAA Foundation is a strong, focused Foundation that is making a difference. Be a part of this important effort to maintain the vibrancy of the profession. If you have any questions or want to discuss the Foundation contact Barbara Packer, Foundation Chair at packerb@nova.edu or Laura Fleming Doyle, Foundation Executive Director at ldoyle@audiology.org. We look forward to the important strides that the profession will make as a result of your direct support of the American Academy of Audiology Foundation.

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**AAAF BOARD OF TRUSTEES**

Barbara Packer, Chair;  
Brad Stach, Academy Board of Directors’ Liaison;  
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**American Academy of Audiology Foundation**

“Ensuring the future of Audiology through research, education, and public awareness.”

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**Celebrates Convention 2004**

Salt Lake City, Utah  
please join us for  

**AAA Foundation Gala**  
Wednesday, March 31, 5:30-7:00 p.m.  
Grand America Hotel—$50 Donation  
Happy 90th Birthday Marion Downs!

**AAAF Donor Appreciation Breakfast**  
Thursday, April 1, 7:00-8:00 a.m.  
Place the Face Contest  
AAA Foundation Booth—$10 Donation  
Exhibit Hall, Academy Center, Booth 150

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1.800.222.2336 ext. 1049  
or  
e-mail: krothen@audiology.org

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**Executive Update**

Laura Fleming Doyle, CAE  
American Academy of Audiology Foundation  
“Ensuring the future of Audiology through research, education, and public awareness.”

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American Academy of Audiology Foundation  
“Ensuring the future of Audiology through research, education, and public awareness.”
The American Academy of Audiology Board of Directors approved the current Strategic Plan (www.audiology.org/about/lrsp.pdf) in January 2003 and developed goals and objectives for the next two to five years which will shape and influence the future of the Academy and the profession. The Board of Directors recognizes that the accomplishment of these goals and objectives would be impossible without the service of many members. The board encourages you to volunteer your time and talents and get involved with your Academy which was created OF, BY and FOR AUDIOLOGISTS!

The Academy board recently revised its policy with regard to Committee participation. The chair shall be appointed by the president. Committee members shall be appointed by the chair.

STANDING COMMITTEES OF THE ACADEMY THROUGH JUNE 30, 2004 ARE AS FOLLOWS:

- **Awards & Honors Committee**
  - Chair: Sharon Sandridge

- **Coding and Practice Management Committee**
  - Chair: Deb Abel

- **Convention 2005 Program Committee**
  - Chair: Catherine Palmer

- **Education Committee**
  - Chair: Wendy Hanks

- **Ethical Practices Board**
  - Chair: Teri Hamill, Chair-Elect: Jane Kukula

- **Government Relations Committee**
  - Chair: President-Elect

- **International Committee**
  - Co-Chairs: Robert Traynor and Jan Smith

- **Marketing Committee**
  - Co-Chairs: Clarke Cox and Gyl Kasewurm

- **Membership Committee**
  - Chair: Steve Huart

- **Nominations Committee (two Members at Large)**
  - Chair: Past President

- **Professional Practices Committee**
  - Chair: Catherine Palmer

- **Publications Committee**
  - Chair: David Fabry

- **Research Committee**
  - Chair: Sherri Jones

- **State Network Committee**
  - Chair: Karen Glay

Chairs will normally have served on the committee prior to assuming the chairmanship. Chairs serve a one-year term, renewable for two additional one-year terms (three years total).

Committees are comprised of a chair, no more than nine members, a Board liaison, and a student member unless the composition is otherwise stated in the Policy & Procedures Manual as required by virtue of the nature of the committee. Committee members serve a two-year term. Initially, committees start with one-half of the committee serving a two-year term and one-half a three-year term to create 50% turnover annually. Committee members, if eligible for membership, must be members of the Academy to serve on a committee. An individual not eligible for membership may be appointed as a non-voting member of the committee.
Informing Parents of Their Child’s Hearing Loss  
“Breaking Bad News” Guidelines for Audiologists

Kris English, PhD, University of Pittsburgh, Pittsburgh, PA, Rebecca Kooper, AuD, Nassau Board of Cooperative Educational Services, Levittown, NY, Gene Bratt, PhD, Vanderbilt University Nashville, TN

Until recently, we operated under a “parent-initiated” model of diagnosis, whereby parents gradually began to suspect a problem with their child’s hearing abilities and actively sought confirmation of their worries. Although that confirmation of “bad news” was upsetting, it was not totally unexpected. Now that audiologists can identify hearing loss in infants before the parents have any reason to suspect its existence, the news will likely catch a family fully by surprise. Audiologists are not unaccustomed to “breaking bad news,” but the implications of this new model of diagnosis requires our highest level of attention. How should we convey this information in a way that will be understood by parents? In a way that will be sensitive to their reactions and convey respect for their shock, denial, and grief? In a way that will help rather than hinder the adjustment process?

Other health professions have already considered procedures for “breaking bad news” in their respective areas of care (Campbell, 1994; Campbell, 1998; Faulkner, 1998; Williams, 1996). For example, specialists in oncology asked cancer patients to instruct physicians how best to convey the difficult news of having a terminal disease (Girgis & Sanson-Fisher, 1995). The researchers also included the views of physicians, clergy, social workers, nurses, and others to develop a consensus on guidelines designed to support both practitioner and patient through this difficult process.

Using a consensus method, Kooper asked 18 mothers of newly identified infants with impaired hearing to rate each proposed guideline on a Likert scale regarding its level of importance (1 = essential; 2 = desirable; 3 = uncertain; 4 = not necessary; 5 = should not be done). Mothers were also asked to offer their own suggested guidelines for consideration, which then were also rated as above. All suggested guidelines rated as essential or desirable by at least 70% of the mothers were included in the guidelines presented below.

SUGGESTED GUIDELINES

1. The diagnosis should be given by the audiologist who administered the tests and/or will be managing the child’s aural habilitation.

Based on input from cancer patients, Girgis and Sanson-Fisher (1998) recommended that “the person who breaks the news should ideally be the primary care physician or senior consultant who has had ongoing contact with the patient and will continue to be involved in the patient’s care, such as planning the treatment” (p. 55). This guideline was rated as essential or desirable by 88% of the parents. An alternative suggestion, “The diagnosis should be given by the pediatrician,” was considered as essential/desirable by only 31% of respondents. It would appear that parents prefer to receive the diagnosis from the professional who will be also be managing the long-term plan of treatment (i.e., an audiologist).

2. Ensure privacy and adequate time, with no interruptions.

The audiologist should make every effort to ensure that test results are conveyed in a private room with a closed door, with telephones and pagers turned off. Artificial barriers such as desks and tables should be removed. Begin with a statement such as, “I’m afraid I have some difficult news” and then provide the information simply and honestly: “As you know, we’ve been testing your child’s hearing, and the results indicate a moderate hearing loss in both ears. I’m very sorry.”

This is not the time to convey a detailed account of the test procedures, unless parents ask. Neurological evidence confirms that when individuals are in shock or are upset, they do not understand or remember information given immediately after receiving this kind of difficult news (Sprenger, 1999).

3. Assess parents’ understanding of the situation.

Upon giving the simply stated diagnosis, follow the parents’ lead. Specifically, provide no information until it is asked for, with this type of prompt: “I have a lot of information I will need to share with you eventually, but for now, what questions or concerns do you have at this time?” Their first questions may have little to do with what we would have first addressed: How can you be sure? Will she talk? Will he be mentally delayed? Did we somehow cause this to happen? Should I be worried? What do I do now? Whatever parents ask first is foremost on their minds, and must be addressed first.

4. Encourage parents to express feelings.

Given the individualized characteristics of each situation, it is unfair to expect parents to act in any particular way. At the same time, we need to appreciate that this moment represents a crisis in their lives (Jerger, et al, 2001; Roush, 2002; Stuart, et al, 2000). As such, parents may not express any feelings because they feel none at the moment (shock or denial). It may help to say, “This may take awhile to sink in, and when it does, it could be very upsetting. I hope you will keep talking to me about it.” When parents do not have the opportunity to talk through their fears, worries, and emotions (now and at later appointments), they may get caught up in what Faulkner (1998) calls “maladaptive behaviors” (p. 61), such as failing to keep appointments, doubting the need for amplification, challenging the test results, etc. When these behaviors are noted, it may be that parents are still struggling with grief and fighting to maintain the life they would prefer to be living.
In informing parents of their child’s hearing loss...

5. Respond with warmth and empathy.

Parents tell us they expect audiologists to be “well trained in the emotional impact of this news” (Luterman & Kurtzer-White, 1999, pp. 15-16). Basic counseling principles apply here: Accept parents with positive, unconditional regard, and perceive them as able to manage their own lives (Clark & English, 2004; Rogers, 1979).

With good intentions, we may be inclined to give this news a positive “spin” by mentioning that hearing loss is not as bad as cancer or other life-threatening diseases. However, this would be inappropriate reassurance according to Clark (1990) because it misdirects attention away from the feelings being felt. Parents may eventually perceive the situation in this way as a natural coping strategy, but that is part of their adjustment process; we cannot hurry it along. Reassurance is appropriate, however, when it can clear up misunderstandings. For example, the audiologist may reassure the parent that although the child is not hearing some sounds, some are being heard, albeit softly.

6. Give parents a broad time frame for future decisions and actions.

Because of promising outcomes of early identification and intervention, audiologists may feel the need for immediate action. However, more harm than good may occur if we insist on decisions and action before parents are ready. They need time to process this experience and the information they have received. Audiologists may worry that parents will not act in a timely fashion, but a recent study found that most parents wanted the hearing aid fitting to proceed within 1-3 months (Sjoblad, et al, 2000). In other words, they are not asking for excessive leeway, just the recognition that they need to be able to move toward these decisions in their own way.

During this first meeting, while conveying initial test results, we can indicate the need to start thinking about the following decisions and actions, now or soon:

- When to begin fitting amplification? Would parents prefer to start immediately, i.e., have the audiologist make earmold impressions during this appointment? Some parents will choose to have impressions made immediately, and some will prefer to wait until the follow-up appointment. Leaving the choice to the parent demonstrates our respect in their ability to make these decisions.
- Would parents like to talk to other parents? If so, would they prefer to initiate the contact, or have other parents do so? Since parents have strongly expressed a need to meet other parents of children with hearing loss, it is incumbent on us to meet that need (Luterman & Kurtzer-White, 1999).

If parents have a pediatrician, would they like the audiologist to call him or her? Other professionals?

7. Provide parents with concrete activities to engage in while waiting for the follow-up appointment.

The time between this appointment and the follow-up appointment can seem endless (Robbins, 2002). Some parents may be ready to start learning about and understanding hearing loss, and would appreciate some direction on how to do so. Not all parents are interested or ready to engage in problem-solving so soon after the diagnosis, and they should not feel obligated to “please the professional” to follow these recommendations if they are not motivated to do so. However, for parents who do ask for this kind of direction, examples of family learning projects as presented below:

- The audiologist might provide written materials and video tapes about hearing loss in children, designed for parents, for them to take home and read/view/absorb over time.
- Even with these support materials, it is difficult for many parents to understand hearing loss. However, the concepts of “loud and soft” are familiar to everyone, so the audiologist can also provide a copy of a familiar sounds audiogram, with a dotted line indicating an estimation of the child’s hearing levels. Although it is too soon to review the formal audiogram with parents at this point, this first introduction to hearing as a function of loudness can be used to help parents to start developing a necessary frame of reference. “Your baby will likely miss much of these softer sounds, unless presented right next to her ear, and these louder sounds will seem much softer to her than to you or me. Start listening to the sounds in your home, especially people talking, then look at this chart and imagine about how it might be sounding to your baby. Very soft? Maybe nothing? On the bottom of this paper, you might want to write down the ‘Top Three’ sounds you want your baby to hear — especially your own voice. We will try very hard to make sure she doesn’t miss any of those sounds.”
- To help support the bonding process and promote a focus on the development of the whole child, parents can be given a notebook to record all behaviors, not just auditory ones. Ask parents to observe and note answers to questions such as: “What seems to soothe or delight your baby? How does s/he tell you s/he is sleepy? What is his/her body language while s/he watches your face? Above all, be sure to keep talking to your baby.”
- To model our desire to fully engage parents, provide a handout or notebook and ask them to jot down all their questions as soon as they think of them, no question to be considered unimportant.

8. Arrange a follow-up appointment.

Schedule a follow-up appointment very soon after this initial appointment, and encourage parents to bring other family members, friends, clergy, etc. as they prefer. Provide a phone number that parents can use if they need to talk to you again before this appointment.

9. At the follow-up appointment—review, expand, initiate aural habilitation.

“Breaking bad news” to parents about the results of their child’s hearing tests is not a one-appointment event but actually a series of conversations over time about the test results, treatment options, and a long-term plan of aural habilitation. During the follow-up appointments, be ready to review
past information, answer new and recurring questions, and provide parents with written information about support services, such as parent groups, social services, and early intervention programs.

10. Document and track the information and counseling support provided.
As with all practices, we will record how information and counseling support was provided. Additionally, ongoing analysis of this documentation can help determine if informational materials are effective, or if a referral to a professional counselor is in order.

SUMMARY
It is helpful to know that “There are no right words for breaking bad news. However, there are a number of general principles that allow ‘bad news’ to be broken in a sensitive way that the recipient can understand” (Faulkner, 1998, p. 13). The “general principles” Faulkner refers to are incorporated into these “breaking bad news” guidelines to support audiologists as they take on the under-appreciated challenge of informing parents that their baby has a hearing loss.

Acknowledgments. This paper is based on R. Kooper’s AuD 2003 capstone project at Central Michigan University. Appreciation is extended to the following colleagues for their support of this project: John Greer Clark, Carl Crandell, Lisa Lucks Mendel, G. Probst, Jane Seaton, Mark Ross, Jackson Roush, and Anne Marie Tharpe.

REFERENCES
T he counseling information that is presented following a hearing evaluation is critically important for the successful management of an auditory disorder. But the question should be asked, “What do patients remember from that brief consultation?” How often do our patients miss one or two critical facts resulting in a complete misunderstanding of their communication problem and what to do about it?

The audiology counseling literature makes an important distinction between informational counseling and personal adjustment counseling. Informational counseling, the subject of this article, is intended to provide the relevant information needed to understand the nature of the disorder and the steps that are recommended to manage it. Without effective communication of the nature, extent, prognosis and management plan, the patient and family are unable to play an active, positive role in remediation, rehabilitation, and secondary prevention of long-term consequences. The purpose of this article is to discuss the research findings on patient recall and to make recommendations for maximizing what patients carry away from the encounter.

How Much Do Patients Remember?

About 50% of information provided by healthcare providers is retained, and 40-80% can be forgotten immediately. Studies in which recall was measured at two points in time do not show a difference when recall is measured soon after the consultation and at a later date. It seems that patients remember a small proportion of facts, and those stay with them for a period of at least several weeks. Of the information that is recalled, about half is remembered incorrectly. So about half is forgotten immediately, and half of what is remembered is wrong.

An even more disturbing finding is that patients often forget their medical diagnoses even when the conditions are serious. In one study, patients could not recall 68% of their diagnoses. Their most serious diagnoses were forgotten 54% of the time. Even life-threatening conditions such as diabetes, hypertension, and liver disease were forgotten. In another study, patients and physicians agreed on problems that required follow-up only 45% of the time.

Factors that Affect Patient Recall

Patient Factors. Surprisingly, intelligence does not affect the proportion of information retained. However, familiarity with the information does have an effect. A patient who is familiar with hearing loss as a result of prior consultations, an affected family member, or professional knowledge tends to remember more. A finding that the patient expects is remembered more than one that is unexpected. A finding that is welcome or desired is more likely to be recalled than one that is unwelcome or unwanted. Patients are better able to recall information when they are in the same emotional state they were in when they received the information. If they were anxious at the time of the consultation they will remember more when they are in a similar state than when they are relaxed. Elderly patients tend to remember less than younger patients. Moderate anxiety enhances recall but severe anxiety inhibits retention of information. Stress causes “attention narrowing” which interferes with the patient’s ability to redirect to a different topic. Denial, which is so common in patients with hearing loss, contributes to poor recall. A patient who is in denial of their hearing loss is not likely to convey information accurately to family members.

Mode of Presentation. Information presented in a simple, easy-to-understand format is remembered better than information presented in a more complex manner. The more information presented, the lower the proportion that is recalled. Information that is presented first tends to be remembered better (the primacy effect).

Categorizing information improves
retention - the method of explicit categorization. Information is organized in specific categories such as Explanation of Systems, Diagnostic Tests, Results, Prognosis and Recommendations. The patient is told that the information will be presented in these categories, each category is announced, and the patient is asked if there are questions before moving on to the next category. One study found a significant enhancement of recall with this method.

A number of studies have found that when verbal presentation is supplemented with written and graphical material, recall is enhanced.

Recommendations are remembered better when they are specific rather than general. A recommendation to “stay home from work and rest for two weeks with no strenuous exercise” is more likely to be followed than “get some rest and take it easy for a while.”

Clinician Factors. Communicative style significantly influences retention of information. Clear language with simple sentence structure results in better recall than complex language loaded with scientific terms. Communication is better when the clinician understands what the patient wishes to learn and what his/her level of understanding is. When the patient’s ideas are evaded or inhibited, the patient is less likely to remember important information. Even the clinician’s anxiety affects recall. Patients remember less when the information is provided by an overtly anxious clinician. The perceived importance of the information also affects retention. Information that is presented in a manner that emphasizes its importance is more likely to be remembered than information present in a matter-of-fact manner.

We all know the head-nodding behavior exhibited by people who hear only part of the message. The same phenomenon occurs in a consultation when the patient appears to understand. Information that is unorganized, unclear, or incomplete can be interpreted by patients to confirm their pre-existing beliefs which may not be in concert with the message the clinician is attempting to communicate. One writer called this the “illusion of shared understanding.” When the clinician is oblivious to the patient’s lack of understanding, the entire consultation session may provide little benefit, or worse, do more harm than good.

Methods Of Maximizing Retention

There are effective strategies for presenting information in a manner that maximizes retention. Although the following strategies will improve retention, all patients will forget some information, even when presented in an optimal manner. Nevertheless, clinicians should incorporate these methods into their counseling sessions.

• Advice should be given as concrete instructions. “Use ear plugs when you use your power tools” rather than “Keep your noise exposure to a minimum.”
• Use easy-to-understand language.
• Present the most important information first to capitalize on the primacy effect.
• Stress the importance of recommendations or other information that you want the patient to remember.
• Use the method of explicit categorization. Tell the patient, “We are going to go over recommendations, then we will talk about your specific hearing problem (diagnosis), then we will go over test results, then we will talk about how your hearing may change in the future (prognosis).” Ask the patient for questions before moving on to the next category.
• Repeat the most important information.
• Don’t present too much information.
• Specifically address the patient’s reasons for seeking a hearing evaluation.
• Supplement verbal information with written, graphical, and pictorial materials that the patient can take home.

These techniques will significantly enhance the accurate recall of information by our patients. But they will still forget. The best way to ensure that the information gets home is to provide the patient with clearly written, illustrated, patient-specific, educational materials that ensure the information is accurate, complete, and available for review and discussion with family members and other professionals. Although we encourage patients to bring family members to the consultation, patients often are alone. Given what is known about retention of information, we should not expect the patient to be able to accurately explain the results and recommendations to family members.

Our profession is solely concerned with the communicative well-being of our patients. Yet our own communication to patients is fundamentally disordered. Although we complain that our counseling efforts are not reimbursed, an analysis of our methods and outcomes would probably not convince payers that we are providing a valuable, reimbursable service when we verbally present complex information in a format that is known to be ineffective. The most important guiding principle for communication of results and recommendations to our patients is:

Any information that is important for the patient to understand and remember should be provided in writing.

References

For additional information on audologic patient counseling including a more complete version of this article, visit www.audiologyincorporated.com
those will never do business with you again. Complain when they are unhappy and 91% of customers in any business will not return if they are treated unfairly. The enthusiasm that results is sure to be contagious and will affect everyone who comes in contact with your organization. Be good to yourself. Have fun!

The best way to handle a patient altercation is to prevent it from happening in the first place. However, it is naïve to think that confrontations with patients will not occur; therefore, knowing how to handle them is essential. When people do not know how to handle complaints, it becomes too easy to revert to human nature and say the wrong thing at the wrong time. It may be helpful to actually have practice sessions to make certain everyone in the organization knows how to handle a difficult situation (Gallagher, 2000). Most people become angry when they feel their complaints are being ignored or they are being treated unfairly.

Patients, especially unhappy ones, may not explain everything clearly or completely. Listen quietly and let the patient vent their feelings. When the tirade ends, ask the patient to clarify anything you may not understand. Then, when you believe you grasp the problem, repeat it back to the patient. Use this time to make it clear that you are interested and understand the reason for the complaint. Statistics indicate that 96% of customers in any business will not complain when they are unhappy and 91% of those will never do business with you again.

Gyl Kasewurm and Helena Solodar, experienced private practitioners, presented a virtual seminar entitled, “Change Your Luck: A Fearless Approach to Getting and Keeping Patients Through Marketing and Customer Service.” This article is the final in a series that summarizes information presented in the seminar. You can purchase a copy of the seminar at www.audiology.org.

Our previous articles have shared details on how to create and execute a marketing plan and how to retain patients by establishing exceptional customer service. Creating a service-oriented organization is the first step, but sustaining quality customer service is what really counts. The following ideas may be helpful in making extraordinary customer service your claim to fame.

**Handle Difficult Situations with Class**

The best way to handle a patient altercation is to prevent it from happening in the first place. However, it is naïve to think that confrontations with patients will not occur; therefore, knowing how to handle them is essential. When people do not know how to handle complaints, it becomes too easy to revert to human nature and say the wrong thing at the wrong time. It may be helpful to actually have practice sessions to make certain everyone in the organization knows how to handle a difficult situation (Gallagher, 2000). Most people become angry when they feel their complaints are being ignored or they are being treated unfairly.

Patients, especially unhappy ones, may not explain everything clearly or completely. Listen quietly and let the patient vent their feelings. When the tirade ends, ask the patient to clarify anything you may not understand. Then, when you believe you grasp the problem, repeat it back to the patient. Use this time to make it clear that you are interested and understand the reason for the complaint. Statistics indicate that 96% of customers in any business will not complain when they are unhappy and 91% of those will never do business with you again.

(Nagen, 2002). Think of a complaint as a wonderful opportunity to turn an unhappy patient into a raving fan of the business. It may seem to cost more in the short run to cheerfully replace a defective product, take care of a special request, or turn a problem into a great service experience. However, if you compare it to the lifetime value of a patient, it is almost always less expensive to satisfy a patient and make him or her a “patient for life.” It is a rare business that does not need repeat business to survive and audiology is no exception.

**Learn from Patient Feedback**

Both compliments and complaints provide important feedback to the future direction of the practice or organization. Regularly solicit feedback from your patients, whether it be verbally or by written surveys. Our experience indicates that the responses you receive will be well worth the price of the stamps. Pay attention to what patients say in those surveys, and make certain to contact the ones who are less than satisfied. While patients may not get what they expect from hearing aids, they must be made to feel that you are interested in their problem and have done everything within your power to satisfy their needs and concerns. The way a patient feels about the practice can substantially speed up the selling cycle for other prospects. Consider establishing a focus group or advisory board comprised of a diverse group of patients who will give you honest feedback on the job you are doing.

**Train everyone in the organization**

Most audiology practices operate with a small workforce. Exceptional customer service should not disappear simply because an employee is on vacation. The entire staff must be competent at answering questions and concerns of patients and prospects. Everyone in the organization should be knowledgeable about the services and products the practice offers. Spend time training the receptionist, as he or she may be the first contact a patient has with your organization. By all means, have written guidelines and policies for the staff to follow so they know exactly how to respond to requests or complaints.

**Reward a Job Well Done**

Behavior that is rewarded is more likely to be repeated. Look for ways to reinforce good behaviors in your coworkers and your staff. The way an employee feels about him or her and the job they are doing will certainly be reflected in the quality of their work. It is easy to focus on the things people are not doing instead of recognizing the things they are doing. Never underestimate the value of a sincere “Thank You.” It’s as important today as it was when your parents drummed it into your head as a child (Greiner and Kinni, 1999). Remember to tell your employees and coworkers that you appreciate the work they are doing whether it is verbally, in writing or with a small gift.

Most importantly, take care of yourself! A well-known commercial asserts, “You deserve a break today.” It is important to take time out to celebrate your successes. Be good to yourself for doing a terrific job. From time to time, go out with your colleagues and celebrate surviving and thriving in the job you do together. Recognizing your successes today will fuel your desire to come back for more tomorrow. Life as an audiologist can be a stressful one! Be good to yourself. Have fun! The enthusiasm that results is sure to be contagious and will affect everyone who comes in contact with your organization.

**References**


This document was developed by a group of professionals who understand the myriad of services for children with cochlear implants. It was prompted by recent situations where school systems have been deemed responsible for paying students’ costs associated with speech processor programming. This group feels strongly it is in the best interest of the child that qualified professionals deliver these services, and schools should not be responsible for paying for them.

Many people help a child achieve his/her best level of success with a cochlear implant. Parents, family members, audiologists, surgeons, therapists, and educational personnel are among those who have vital and unique roles to play in the child’s long-term care. The majority of children with cochlear implants will require specific educational services and accommodations at school. Even when a child with a cochlear implant develops age-appropriate language, he/she does not have normal hearing and will require appropriate educational services. These educational services may include, but are not limited to, speech-language pathology services, FM (or sound field) technology, deaf education services, individual or small group instructional support, educational audiologist, interpreter services, device troubleshooting, captioning, and auditory (listening) therapy.

Cochlear implant audiologists have skills that are typically different from diagnostic, educational or rehabilitative audiologists. Audiologists who program speech processors for children have specialized training and experience. Ongoing training is required to maintain this knowledge base and skill set because implant systems and software change frequently. Cochlear implant audiologists have access to physicians in cases of medical necessity, such as wound infections, internal device failures, or skin breakdown.

Audiologists who do not see many cochlear implant recipients have difficulty developing the expertise necessary to deliver appropriate follow-up. Cochlear implant audiologists are part of a medical team or are closely aligned. Their services include programming and maintaining the speech processor. Programming the speech processor is a process of determining the appropriate levels and patterns of electrical stimulation to be delivered to the surgically implanted component to elicit comfortable and usable auditory perception. Importantly, cochlear implant audiologists have access to physicians in cases of medical necessity, such as wound infections, internal device failures, or skin breakdown. Audiologists who do not see many cochlear implant recipients have difficulty developing the expertise necessary to deliver appropriate follow-up. Additionally, updates to instrumentation and the required continued training would place considerable financial burden on school systems.

Cochlear implants are biomedical devices, recognized as such by the United States Food and Drug Administration. They require follow-up by a medical team and are subject to medical complications. As such, payment for services is the responsibility of private and public medical health insurance systems. It is inappropriate and potentially fiscally devastating for educational systems to be responsible for these expenses. The 108th Congress (2003) of the United States shared this view in a recommended amendment to the Individuals with Disabilities Education Act (IDEA) put forth by the Committee on Health, Education, Labor and Pensions.

In summary, the biomedical nature of the cochlear implant necessitates that follow-up care and speech processor programming be provided by specially trained audiologists working in collaboration with an implant surgeon. The educational system holds a different but vital role in the ongoing care of implanted children. Importantly, making schools financially responsible for speech processor programming could negatively impact the medical and educational management of a child with a cochlear implant.
Join us as we honor these individuals at the Academy Awards Reception on April 1, 2004, 6:00-7:30 p.m. during the 16th Annual Convention & Expo in Salt Lake City.

Much of what we understand today about speech intelligibility is the result of the pioneering work of the 2004 Career Award in Hearing recipient — George Miller, PhD. Miller received his BA and MA from the University of Alabama in 1940 and 1941, respectively, and his MA and PhD in experimental psychology from Harvard University in 1946. He has served on the faculties of Harvard, MIT, Rockefeller University, and for over the past 20 years Princeton University. While at Harvard, he studied speech production and perception. In 1951, Miller published a summary of that work in the seminal text Language and Communication, a book many of us have used. That text helped to establish psycholinguistics as an independent field of research in psychology. Miller is also well known for his widely quoted paper, The Magical Number Seven, Plus or Minus Two, a classic work describing short-term memory information capacity. In the 1960s he was the co-founder of Harvard Center for Cognitive Studies along with Jerome Bruner. In the 1970s Miller’s interest shifted from grammar to lexicon. His book Language and Perception presented a detailed hypothesis about the way lexical information is stored in long-term memory. In 1979, Miller became a member of the faculty at Princeton University and in 1990 he became the James McDonnell Distinguished University Professor of Psychology, Emeritus. In the 1980s Miller developed WordNet, an online lexical database and then incorporated that into a reading environment known as Reader. In 1990 he published The Science of Words, a book that won the Williams James Book Award from the American Psychological Association. In 1991, Miller was awarded the National Medal of Science by President George H.W. Bush. In addition to those honors, he has been recognized with over 30 other honors including “Outstanding Lifetime Contribution to Psychology,” “John P. McGovern Award,” “Louis E. Levy Medal of the Franklin Institute,” for example. With over 200 publications in the area of cognitive psychology Miller certainly deserves the title of “co-founder of cognitive psychology.” Yet, his contributions reach beyond the field of psychology. His early work in speech perception has laid the foundation for our understanding of speech perception. Miller’s work has become fundamental to our understanding of audition, even influencing our understanding of the benefits from amplification. George Miller is most deserving of this award for his significant contribution to the scientific bases of audiology.

Individuals who have a significant impact on the training of student audiologists in the capacity of supervisor or teacher/instructor are honored with the Clinical Educator Award. Patricia McCarthy, PhD is the quintessential educator and the 2004 recipient of the American Academy of Audiology Clinical Educator Award. McCarthy has dedicated her professional life to teaching, educating, and transforming students into professionals. She has had a significant impact on students whether it has been at the University of Denver, North Chicago Veterans Administration Medical Center, University of Georgia or Rush University Medical Center where she is a professor today and has been since 1997. While at the University of Georgia she was honored for her excellence in teaching three times in a seven-year period. While at Rush University, the students have chosen her to perform the hooding ceremony at commencement, a special honor that is reserved for faculty that have demonstrated a special commitment to students at an extraordinary level, on three separate occasions. Fortunately for the profession, McCarthy’s impact is not limited to her students but extends nationally and internationally to those who attend her presentations or have read her publications. Her book, co-authored with Jerome Alpiner, PhD, Rehabilitative Audiology: Children and Adults, now in the 3rd edition, is considered THE book for audiologic rehabilitation. McCarthy has over 30 publications covering all aspects of audiological rehabilitation — self-assessment inventories, need for counseling, ethical and moral issues related to cochlear implants, and assistive listening devices, to name a few. Yet, McCarthy not only teaches and publishes, she is an extremely active member of the profession serving on over 30 national, 15 state and local, and 50 university committees. She has chaired the Academy Honors Committee, the Academy Professional Practices Committee, and served as Program Chair for the Academy’s 1997 Annual Convention. In addition, she has been honored for her dedication to the profession by receiving the “Honors of the Association” from the Georgia Speech-Language-Hearing Association, “Superior Performance Award” from the Veterans Administration Medical Center - North Chicago, IL, the “President’s Distinguished Service Medal” from the Academy, and became an ASHA Fellow in 1993. Her students have described her as a superior teacher who facilitates maximum learning; very knowledgeable and competent professor; awesome job teaching; as always, a very challenging, yet insightful instructor; has excellent insight into human nature; and respectful in her interactions with students. As her mentor, Dr. Alpiner stated, “...no faculty person has ever achieved the professional balance of this [recipient].” Dr. Patricia McCarthy is most deserving of this honor.
Craig W. Newman, PhD has published over 90 articles spanning six distinct areas in the field of audiology. But most notably, it is his work in clinic-based research, and most recently, his work in evidence-based medicine that has had the greatest impact as shown by his article, co-authored by Sharon A. Sandridge, PhD. “Benefit from, satisfaction with, and cost-effectiveness of three different hearing aid technologies” which received the Editor’s Choice Award from the American Journal of Audiology in 1999. For the last 20 plus years, he has been on staff of such medical facilities as the Veterans Administration Medical Center - Cleveland, Ohio, Henry Ford Hospital, and since 1994, the Cleveland Clinic Foundation serving as Head of Audiology. It is his commitment to improving service to patients that has driven his research. Newman’s work on developing protocols to determine functional status of patients is without parallel. He and his colleagues developed such inventories as the Hearing Handicap Inventory, Tinnitus Hearing Inventory, and the Dizziness Handicap Inventory. He is recognized as an expert in outcome measures nationally by currently serving as the Chair of the Task Force for Systematic Review of the Nonacoustic Benefits of Hearing Aids, and as a member of the I.H. Page Center Outcomes Research Group - Office of Clinical Effectiveness at the Cleveland Clinic Foundation. Newman is regarded as an expert in tinnitus and currently is serving on the Scientific Advisory Committee. In addition to his research, he is the consummate educator. He has shared his knowledge through his over 160 presentations - nationally and internationally, his mentorship of students and clinical fellows, and by co-directing a number of national/international conferences. For his contribution to the profession, Newman has twice been recognized with the “Superior Performance Award” from the Veterans Administration Medical Center, the “Outstanding Professional Federal Employee” from the Federal Executive Board of Cleveland and was named an ASHA Fellow in 1996. Newman has represented our profession with dignity and professionalism and embodies the principles established by Dr. James Jerger, whom this prestigious award is aptly named.

This year the Academy is honoring a research team for their collaborative efforts, as well as their individual efforts. Michael Gorga, PhD and Patricia Stelmachowicz, PhD have provided the field of Pediatric Audiology with some of its best diagnostic and therapeutic studies. This team has worked together for many years. They began their careers at the University of Iowa, spent a few years at Kresge Hearing Research Lab, and have settled in at the Boys Town National Research Hospital in Omaha, Nebraska, where they have been for the past 22 years. Today, Gorga directs a world-renowned laboratory, the Clinical Sensory Physiology Lab at Boys Town. He has over 100 publications in the area of electrophysiology – primarily the auditory brainstem response (ABR) and otoacoustic emissions (OAE). Most notably, it was his systematic investigation of the effects of stimulus parameters on the electrophysiologic response that led to the establishment of rigorous clinical protocols for electrophysiologic testing used clinically today. Gorga’s work on the use of ABR and/or OAEs to predict hearing loss in infants and young children has been landmark. In fact, his normative data for ABR and the OAE are incorporated into many manufacturers’ equipment. There is no doubt that Dr. Gorga’s research program has, indeed, fundamentally shaped the area of electrophysiologic testing of the pediatric population. His partner, Stelmachowicz, has been the director of Audiological Services at Boys Town since 1981. In addition to directing a busy clinical practice, Stelmachowicz has produced a substantial body of work. She has over 80 publications related to management of hearing loss in the pediatric population. Dr. Stelmachowicz has received extramural funding for her research since 1984 serving as principal investigator or co-investigator for Program Project Grants, Research and Training Grants and R01s. Her research is highly methodical and systematic first investigating the theory and then applying that theory to solve a clinical problem or improve clinical practices. While Gorga’s research has been more laboratory-based - or “bench” research, Dr. Stelmachowicz’s research has been more clinically applicable - or “bedside.” Together, they epitomize the bench-to-bedside concept in work that has moved scientific theory into practical application. The team of Gorga and Stelmachowicz has fundamentally contributed to our foundation of diagnosing and treating hearing loss in the pediatric population. This award acknowledges the complementary and exemplary research careers of Michael Gorga and Patricia Stelmachowicz.
Many of us are aware of the work of David McPherson, PhD. His research in the areas of cochlear function, evoked potentials, and most recently his work in the area of late and cognitive auditory evoked response, is recognized nationally and internationally. He has over 50 publications and has studied with such notables as Josef Miller, PhD and Vicente Honrubia, MD. His work in the field of audiology is a matter of record. Yet, few of us realize the extent that McPherson’s work extends beyond his research lab and classroom. In fact, McPherson’s greatest contribution may be through the humanitarian work he has been doing for the past 20 years. In the 1980s as part of Project Hope, he accompanied a medical group to Mexico one weekend a month to provide services in small villages in the hills. His role was to conduct audiolingic testing and distribute reconditioned hearing aids he collected from the Orange County [CA] Commission. McPherson would return to the same villages every three to four months later to follow-up with his “patients.” For one particular village, he helped coordinate an Eagle Scout’s project of collecting sports equipment that was donated to that village. In addition, he conducted hearing screenings for the Orange County Regional Center once a month. Since the 1990s, McPherson has taken time from his busy schedule as department head at Brigham Young University and extended his humanitarian work beyond the borders of North America. McPherson’s humanitarianism stays close to home as well, as he opens his home to diverse persons of need. For example, a young man from China stayed with the McPhersons to finish his last year of graduate work in engineering when the lab he was working ran out of funding. A Polish colleague was ill and in need of medical assistance. McPherson not only arranged for medical treatment in the U.S. but also welcomed that person into his home during this time. Further, he extended his hospitality to her son who stayed with the McPhersons while he was a student at BYU. McPherson is described by a few of his colleagues as a “great scientist, teacher, clinician and superb human being.” He is “wonderful, an extraordinary person, kind, thoughtful and generous.” He is “not only a true professional in audiology and related sciences but also an exceptional human being.” McPherson, along with his wife, has devoted over 20 years to helping others. Their hearts really do belong to their humanitarian work and David McPherson is most deserving of the 2004 American Academy of Audiology Humanitarian Award.

The first recipient of the International Award in Hearing is none other than the esteemed Brian Moore, PhD, Professor of Auditory Perception at the University of Cambridge, England. Moore received his doctorate in experimental psychology at the University of Cambridge in 1971. From that point until today, he has been exceptionally prolific publishing more than 500 articles in refereed journals - with over 90% of the articles published in such prestigious journals as Journal of Acoustical Society of America, Nature, British Journal of Hearing, Science, and Hearing Research. Moore also has published 77 book chapters and proceedings, 11 books, and two compact disks. He has received continuous extramural funding from 29 grants since 1979 for his work in some aspect of hearing science. Moore's initial work investigated the relationship of auditory abilities to speech perception. In the late 1970s, he began to investigate the ability to perceive speech through electronic devices - namely the single channel cochlear implant. In the mid 1980s, he developed and evaluated hearing aids. In the late 1980s, he investigated signal processing hearing aids. The 1990s saw a program of research investigating the use of digital signal processing in hearing aids and the efficacy of speech processing. In 2000, Moore published his first work on cochlear dead regions, a topic that would soon become a major interest of study in the field of audiology. His work in the area of cochlear dead regions led to the development of the “Ten Test” - a test for the diagnosis of dead regions. His two compact disks are dedicated to the area of cochlear dead regions. Although Moore's career has already spanned three decades, he shows no signs of slowing down. In 2003 alone, he had 30 articles submitted to refereed journals. Of those 30 articles, 10 were in the review process, 13 accepted for publication, and 7 published. As a tribute to his significant contribution to science, Moore has been elected a Fellow to the Acoustical Society of America, the Academy of Medical Sciences, and the Royal Society of London. He was recently awarded the Silver Medal of the Acoustical Society of America and in 2003 he was presented a plaque for his “Significant and Lifelong Contributions to the Understanding of Human Beings” by the American Auditory Society. Brian Moore has been, and continues to be, a true international researcher in all aspects of hearing science.
The prerequisites for student admission and the curriculum leading to the professional degree curriculum have been established and agreed upon by the more than 40 universities that provide AuD degree programs. However, the requirement for a full year clinical experience following completion of the academic requirements has created substantial concern as a growing number of AuD degree candidates reach the point in their graduate programs when they are ready to begin their final year. Recognizing an immediate need to take action on these concerns, the American Academy of Audiology Board of Directors, during their summer meeting in 2003, committed the Academy to host a consensus conference to openly discuss issues and concerns related to the 4th year AuD student clinical experience. A steering committee was appointed to develop a conference program that would include any and all interested audiologists. Along with the Academy, the AAA Foundation and the Veteran’s Administration agreed to provide financial support for the national meeting.
Accordingly, on January 10 and 11, 2004, nearly 120 audiologists met in Reston, VA to identify, discuss and debate issues and concerns associated with the Doctor of Audiology (AuD) year-long clinical training experience, commonly referred to as the “externship.” Participants included audiologists from more than 35 universities with doctoral-level audiology programs as well as a number of audiologists from private practice, the Veterans Administration, medical centers, educational audiology, pediatric tertiary care centers, corporate audiology and AuD students. The meeting included more than 40 invited and contributed papers and open forum sessions for audience participation. Following the conference, a writing committee prepared a document to summarize the issues discussed and serve as guidelines for universities to follow during the clinical experience year. A report of the conference will be the focus of a Featured Session (FS801) at Convention 2004 scheduled for Salt Lake City on Thursday, April 1, 8:00 to 9:30 am.
Why is Utah called the Beehive State? Officially, the beehive was a symbol of the pioneer work ethic, but Utah is also known for beehive hairdos, green jello, and the Olympics!

Get Oriented! It’s easy to find your way around Salt Lake, because it’s laid out on a numbered grid. Keep in mind that the blocks are twice as long as in other cities (the widest streets you’ll ever see). Both north-south and east-west streets are numbered by the 100’s. An insider’s tip to understand the local lingo: When you ask for directions, people will drop the last two numbers, so 100 South and 400 West (where the Gateway Shopping Center is located) becomes “1st South and 4th West”. Main Street runs North-South and South Temple runs East-West on the center of the grid.

TRAX

Make Trax to Salt Lake’s new clean, safe light rail service. A large section of the Downtown area, including the Salt Palace, Temple Square, the Gateway Center and the area just west of the State Capitol, is a fare-free zone (outlined in blue) and there is no charge if commuters or visitors enter or exit a bus or TRAX between the designated streets. The orange dotted line shows the Trax line downtown, with the stops marked by yellow circles.

Trains stop every 10 to 30 minutes between 5:30am and 11:00pm on weekdays and Saturday (until 1 am on the weekends). Outside the free zone, the standard one-way fare within the entire valley is $1.25. Tickets can be purchased from vending machines. These tickets are valid for two hours from the time of purchase and can be used as often as necessary on both buses and light rail. A full day pass is valid for unlimited rides on buses and TRAX for $2.50.

SHOPTING

THE GATEWAY PLAZA 450 W 100 S

More than just a shopping area, the Gateway is part of the downtown night scene. Salt Lake’s only open-air shopping, dinning, and entertainment destination including over 90 shops/restaurants. Featuring the Olympic Legacy Plaza and historic Union Pacific Depot. Crossroads Plaza, 50 S Main St # 650 Crossroads Plaza is an all-inclusive downtown shopping experience located in the heart of Salt Lake City across from Temple Square. Among its 140 stores and restaurants are Nordstrom and Mervyn’s.

ZCMI Center Mall 36 S State St

Founded by Brigham Young in 1868, the Zion’s Cooperative Mercantile Institution was America’s first department store. The cast-iron facade on the Main Street entrance of the ZCMI Center Mall dates to 1902. History notwithstanding, this is a thoroughly modern shopping center. The ZCMI Center is located in the heart of Salt Lake City across from Temple Square and next to the Crossroads Plaza.

TROLLEY SQUARE 700 E 600 S

Trolley Square is an upscale marketplace situated in four historic trolley barns. Over 80 unique shops, restaurants and entertainment centers. It is listed on the National Register of Historic Places. It is also a Utah Historic Site. Stores include the Gap, Pottery Barn, Restoration Hardware, Ann Taylor, Williams-Sonoma, and Banana Republic.

Get Ready to Rock in Salt Lake City!

Salt Lake City is the first “repeat city” ever for the AAA Convention. If you attended the previous convention here 8 years ago, you’re bound to be impressed with the changes that have happened since then in “the Crossroads of the West.” The 2002 Olympics brought new developments to the city. The airport was upgraded and freeway access improved. Trax—a new light rail system—runs through downtown-free of charge, and the Olympic venues are available for you to enjoy. The trendy new Gateway Center outdoor shopping area was built around the historic Union Depot Station. Boasting an Olympic Plaza, 12-screen theater, Omnimax theater, warming cauldrons, great eateries and shops to stroll through, it’s only 3 blocks or a short Trax ride from the Salt Palace Convention Center. New restaurants and bars have opened throughout the downtown area, and new and renovated hotels are conveniently located near the convention center.

Salt Lake City was recently ranked the “9th Most Fun City” in the United States! We would definitely have to agree that Salt Lake has so much to do and see, you’ll never get bored. From world-class skiing at a dozen resorts, to fabulous up-scale and unique Western shopping, to every kind of dining you can imagine and a great nightlife, the Beehive state is buzzing with action and it’s Ready to Rock for Audiology!
**Restaurant Sampler**

*These are but a sample of sure bets…*

**BACI TRATTORIA**  
134 W Pierpont Ave. Italian, Steak.  
Wine Spectator’s Award of Excellence 2002. This is a trendy but casual restaurant in the heart of downtown. Part of the “Gastronomy” restaurants, it shares a standard of excellence with the more upscale eateries in the group. But, this restaurant is more relaxed and friendly, featuring fresh pasta dishes (including a very reasonable “early bird special”). Complete dinner entrees include veal and chicken specials. The entire menu is prepared with a Northern Italian flavor. Beer and wine are available with your meals. The more upscale “Club Baci,” located just next door, is a private club for members.

**BLUE IGUANA**  
155 South West Temple  
American, Steak.  
Known for its fresh and well-prepared seafood, this restaurant has a lively atmosphere. It is owned by Gastronomy, Inc., a Salt Lake chain that transforms historic buildings into tasteful dining spots. Although you can count on every entree being a winner, be sure to check the daily fish specials before ordering. Reservations not accepted.

**MARKET STREET GRILL**  
48 West Market Street  
Seafood, American, Steak.  
Enjoy delicious vegetarian, lamb, beef and chicken dishes.

**CEDARS OF LEBANON**  
152 E 200 South  
Middle Eastern, Vegetarian.  
You will enjoy Salt Lake’s finest in Middle-Eastern Cuisine when you dine at Cedars of Lebanon Restaurant. Serving authentic specialties from Lebanon, Armenia, Israel and Morocco. Enjoy delicious vegetarian, lamb, beef and chicken dishes.

**MARKET STREET GRILL**  
48 West Market Street  
Seafood, American, Steak.  
Known for its fresh and well-prepared seafood, this restaurant has a lively atmosphere. It is owned by Gastronomy, Inc., a Salt Lake chain that transforms historic buildings into tasteful dining spots. Although you can count on every entree being a winner, be sure to check the daily fish specials before ordering. Reservations not accepted.

**ROOF RESTAURANT**  
15 E. South Temple (Main St)  
Eclectic/ International.  
Enjoy fine dining atop the historic Joseph Smith Memorial Building, featuring a gourmet dinner buffet that is eclipsed by views of the Salt Lake Valley and Temple Square. Reservations recommended.

**XIAO LI**  
307 W 200 S, Chinese. Voted Salt Lake City’s Best Chinese Restaurant 1997, 1998 & 1999 and recognized by our locals as the one that serves the most authentic Szechwan and Mandarin cuisine! The quality and service has won the appraise of many food critics in the area. Enjoy the spicy treats from Chengdu or the delicate dishes from Beijing. You’ll be pleasantly satisfied!

**Bars/ Nightlife**

Downtown Salt Lake City is a vibrant place to be after dark. Whether you’ve got an urge for highballs or Shirley Temples, live music or comedy, the city’s more than 100 restaurants and private clubs are sure to satisfy any craving. As Olympic partygoers found, it is just as easy to get a drink in Salt Lake as it is to order a meal. And visitors rarely notice a difference between Salt Lake and other major American cities. The *Salt Lake Tribune* writes that “Some people are surprised at how easy it is to have a good time here,” said Deno Dakis, general manager of Port O’ Call Social Club in downtown Salt Lake, and nine-year veteran of Salt Lake’s club scene. “People come expecting a buttoned-down, conservative culture and find a town ready to party, with cool clubs, great restaurants and fun bars.” Restaurants in Salt Lake serve alcohol with the purchase of food, just like restaurants in New York, Los Angeles, Chicago, Las Vegas and New Orleans. Private clubs are Utah’s equivalent to bars. While the term ‘private club’ may sound exclusive, they are open to everyone. Visitors purchase two-week memberships, similar to a cover charge in other cities. The memberships cost $4 and allow sponsorship of other guests.

Sample selection of nightclubs, bars and grills:

**BOURBON STREET BAR & GRILL**  
372 S. State Street  
Live Music Fri-sat, no cover charge

**CLUB NAKED**  
326 South West Temple  
Dance Club / Private Club - $1 Appletinis!

**CLUB SPLASH**  
404 South West Temple  
Dance Club / Martini Bar, Tapas, Game Room 2,000 sq. foot dance floor combined with 2,000 gallons of water per minute - quite the experience!
DEAD GOAT SALOON
165 South West Temple
Live Music / Blues - A “Rockin’ Little Roadhouse! Rotating mix of local and national acts, plus pool and darts.

MARKET STREET OYSTER BAR
DOWNTOWN 48 West Market Street
Private Club / Seafood Restaurant
Flown-in fresh seafood, oysters, chowders and steaks.

MONK’S HOUSE OF JAZZ
19 East 200 South
Live Music / Jazz

O’SHUCKS BAR & GRILL
22 East 100 South
Bar & Grill / Live Music Housed in one of the city’s last historic brownstones, a peanut bar with good old fashioned neighborhood feel.

RED ROCK BREWING COMPANY
254 South, 200 West
Award winning contemporary micro-brewery. Fresh beers on tap, plus their own signature root beer. Full kitchen, wood burning stove, burgers and pizza.

SHAGGY’S 155 West 200 South
Private Club - head back to the 70’s for a nostalgic good time!

SKYBOX SPORTS GRILLE & ARENA
4 S. Rio Grande in Gateway Plaza
Private Club & Sports Bar

MORMON TABERNACLE CHOIR:
The world-famous Mormon Tabernacle Choir will be open to the public at a practice session on Thursday evening from 8:00pm to 9:30pm, and visitors may come and go as they like. Expect large crowds around Temple Square, as the LDS Spring meeting will be going on at the same time.

THE OFF BROADWAY THEATRE
(OBT) 272 S. Main St.
Salt Lake’s downtown hot spot for comedy. From great Broadway-style shows to wild and wacky spoofs and parodies, to amazing improv comedy. OBT is also the home of Utah’s most popular improv comedy show, the OBT Improv Troupe: Quick Wits. The Troupe has played to over 200 straight sold out shows.

WINGPOINTE GOLF COURSE, the newest of Salt Lake City’s golfing gems, borders Salt Lake City International Airport. It looks like it has been import-
ed from Scotland with its rolling mounds and links-style rough that rivals the heather and gorse of The Old Course in St. Andrews. Designed by renowned golf-course architect Arthur Hills and opened in the summer of 1990, Wingpointe has become one of the busiest golf courses in Utah and one of its most challenging. It is the home of the annual Utah Open qualifying tournament for professionals.

Mormon Sites

FAMILY HISTORY LIBRARY:
The world’s largest collection of genealogical records. Founded in 1894. Open to the public at no charge to assist them in tracing their family histories. Collection includes over 2 million rolls of microfilmed records; 711,000 microfiche; 278,000 books; several electronic data files. Open on Monday from 7:30 a.m. to 5 p.m. and Tuesday through Saturday from 7:30 a.m. to 10 p.m. 35 North West Temple.

FAMILY SEARCH CENTER:
Discover some fascinating people—your ancestors. The Family Search Center’s collection of compiled genealogical data on 150 computers and a friendly, supportive staff will make your genealogical quest an exciting event. Admission is free. Open 9:00 am to 9:00 pm Mon-Sat. Joseph Smith Memorial Building, 15 East South Temple Street.

MUSEUM OF CHURCH HISTORY & ART:
The Museum offers interpretive exhibits about Latter-day Saint history from 1820 to the present. Exhibits feature artifacts, models, art and documents. Also available are free tours, movies and a gift shop. Open daily. Free admission. 45 North West Temple.

HISTORIC TEMPLE SQUARE:
Within a lushly landscaped, ten-acre refuge in downtown Salt Lake City stands the multi spired Salt Lake Temple; the Tabernacle, home of the Mormon Tabernacle Choir and organ; the Assembly Hall; monuments; and Visitors’ Centers with presentations about the beliefs and history of The Church of Jesus Christ of Latter-day Saints. Free tours daily 9:00am to 9:00pm. 50 West North Temple.

Skiing

Salt Lake and Park City together offer seven world-class resorts, conveniently located in Park City, and Big and Little Cottonwood canyons, just minutes from downtown and the international airport. Utah’s Greatest Snow on Earth™ brag isn’t just a catchy marketing phrase. A lucky combination of geologic features makes Utah powder the driest, fluffiest, most skiable snow in the world. In fact, national skier surveys consistently rank Salt Lake’s mountain resorts number one for snow quality. You just have to experience it. It’s dry, light, and plentiful—in a good year there are over 500 inches, more than twice as much as resorts on the other side of the Rockies. This year, Utah resorts are well above average snowfall—over 350 inches as of January 30!

And the weather’s fine. Salt Lake’s high desert location enjoys a dry cold. Not like those places where it’s wet and cold, the wind is howling, and they’re making snow. Winter temperatures at the resorts are mild, and the terrific spring ski season you will find in late March is warm and sunny.

To help you take advantage of the Utah experience, a pre-convention ski day has been planned on Tuesday, March 30 at Solitude ski area. Solitude is only 30 minutes from Salt Lake and shuttle transportation is available. If you are looking for more than one day of skiing, discounted accommodations are available for convention attendees. This is a win/win situation that you simply can’t pass up!

This family-friendly, European style resort, boasts a world-class mountain, spectacular scenery, cozy resort accommodations and an abundance of activities. Located in Big Cottonwood Canyon, 30 miles from Salt Lake City International airport, Solitude is the epitome of an easy mountain retreat. On the mountain you will find over 1,200 acres of first-class terrain, including the pristine Honeycomb Canyon, with a brand new lift. Other outdoor activities include a skating rink, Nordic skiing, wonderful heated outdoor pool and hot tub area. Indoors, you will find a mini-theatre, billiards and kids gaming room. First class dining and bars will keep you going.

Pre-convention group lodging rates have been arranged to run from Saturday, March 27 through Wednesday, March 31. Group events have been planned such as a Nastar race for down-hillers and a group outing tour for snowshoers or Nordic skiers. Also a group skate time at the Solitude village skating area has been planned. This will be a great opportunity to meet old friends and make new ones and enjoy the best that Utah ski country has to offer. Make plans today to participate in this event along with your convention schedule.

We’ll look forward to seeing you there!

Mountains of Instructional Courses

Convention 2004 Instructional Course Sub-Committee turned in a rock-solid effort in selecting 90 Instructional Courses across all educational tracks to help inform your clinical practice. No stone was left unturned in striving to assure your satisfaction: a quality educational experience featuring fresh and innovative course selections. You’ll shake, rattle and roll when you see the Instructional Course offerings at Convention 2004!
CONVENTION 2004
MARCH 31–APRIL 3, 2004
EXPO 2004
Salt Lake City

ACADEMY CENTER
Check out the Academy Center for the latest and greatest Academy products and official Convention 2004 gear. This is where you’ll find interactive marketing tools, educational products and special Convention 2004 souvenirs to add to your collection. Remember to save plenty of room in your suitcase! The Academy Center will also include the following organizations:

► ABA CERTIFICATION
Are you Board Certified in Audiology®? Join the growing number of your professional colleagues who have already chosen to demonstrate their commitment to quality hearing and balance care through the attainment of this voluntary credential. The American Board of Audiology Certification Program identifies and recognizes audiologists whose knowledge base, clinical skills and ethical practices are consistent with professionally established standards and who continue to enhance their professional knowledge through continuing education. Applications and general information will be distributed at the ABA Booth, located in the Academy Center, where ABA Board members and staff will be happy to answer any questions you may have regarding Board Certification in Audiology through the American Board of Audiology.

► ADVOCACY BOOTH
The Academy’s Government Relations Committee, working with the Coding and Practice Management Committee, helps to advocate for health policies and legislative and regulatory changes to ensure autonomy of the Audiology profession. The Academy utilizes the State Leaders Network, Grassroots Activities and the Academy PAC to maintain an active presence in Washington and your respective states. Stop by the Advocacy Booth in the Academy Center to learn more about how you can help your profession, share your reimbursement concerns with staff and be an advocate for audiology issues. Academy PAC Contributor posters, Academy Congressional Directories and Coding and Practice Management Committee fact sheets will be available. Members may also use the Academy Legislative Action Center to send a message to Members of Congress on important issues facing audiologists.

► INTERNATIONAL HOSPITALITY CENTER
Last year, we invited our international delegates and members to the International Hospitality Center to meet and greet each other during the Convention. Here Members and International Delegates will find directions and some linguistic assistance in getting around the Convention for those with limited English skills. Additionally, the International Hospitality Center is where other international organizations, such as the International Society of Audiology and the Pan American Society of Audiology are available to discuss their organizations with you. Come by the International Hospitality Center and register for the Adopt-a-Colleague Program, matching with a colleague from another country for correspondence purposes. If you register for this program, you will have a chance to win a free registration for Convention 2005 in Washington, DC.

► JOURNAL OF THE AMERICAN ACADEMY OF AUDIOLOGY (JAAA)
The Journal of the American Academy of Audiology is a vital part of every audiologist’s education. Visit the JAAA booth at the Academy Center to pick up the current issue, chat with the editor or learn more about the publishing of this important resource.

► AMERICAN ACADEMY OF AUDIOLOGY FOUNDATION (AAAF)
Academy members recently received a postcard promoting Convention 2004 in Salt Lake City with twenty-four happy, smiling faces of audiologists who attended Convention 2003 in San Antonio. Why are these people smiling? Find out at the AAA Foundation booth! See how many of those happy, smiling faces you can identify by name to be eligible to win special prizes, including a portable DVD and a MP3 music player. Enter the “Place the Face” contest right now by going to www.audiologyfoundation.org for an up-close look at the postcard faces and download the answer sheet. Enter the contest by submitting your answer sheet by mail along with a $10 donation to the AAA Foundation, 11730 Plaza America Drive, Suite 300, Reston, VA 20190. Visit the AAA Foundation booth in the Academy Center during Expo 2004 in Salt Lake City to see the correct identification of the audiologists behind the faces. Deadline for submission is April 3, 2004 so you can drop your answer sheet and $10 donation off at the AAA Foundation booth. Winners will be announced at the end of Convention 2004.

► NATIONAL ASSOCIATION OF FUTURE DOCTORS OF AUDIOLOGY (NAFDA)
NAFDA is very much a part of the rich fabric of the AuD education. Established in 1998, as an organization that would support students with the highest quality of education and resources available. The organization is the student’s voice, and has represented AuD Students in virtually every category, ranging from four-year students to distance learning students to alumni members. Stop by the Academy Center to speak with a NAFDA representative.

► MARKETING & EDUCATIONAL TOOLS
From informative educational brochures to stimulating marketing ideas to interactive training videos, you’ll find everything you need to perk up your audiology practice here. This is the one time of the year when the Academy can bring our store to you. Pick up copies of popular consumer brochures like Tinnitus, How’s Your Hearing? and Selecting the Hearing Aids That Are Right for You. Spend a few minutes watching the Front Office Training Video to see if this popular training kit is right for your staff. And be sure to save room in your suitcase for the highly-rated Physician’s Hearing Health Kit. Stop by, browse, ask questions and take home exciting and helpful new ideas for your practice.
CONVENTION 2004
MARCH 31 – APRIL 3, 2004
Salt Lake City

EXHIBIT HALL HOURS
Thursday, April 1 12pm-6pm
Friday, April 2 10am-5pm
Saturday, April 3 10am-4pm

WHERE
Salt Palace Convention Center
20100 South West Temple
Salt Lake City, UT 84101
T: 801-534-4777

EXPO AT-A-GLANCE SHOW INFORMATION

DEMO THEATER
Stop by the Demo Theater in booth #2707 on the Expo floor to learn about new products, services and the latest technology and product advancements available to you! Exhibitor’s will be demonstrating and showcasing their new products throughout the Expo 2004 show hours. The following companies will be providing demonstrations:

THURSDAY  Time  FRIDAY  Time  SATURDAY  Time
Audio Enhancement  12noon  GN ReSound  10am  Starkey Laboratories  10 am
ENT News  1pm  Audio Enhancement  11am  Sonovation  11am
Interton  2pm  Sycle  12noon  Oticon, Inc.  12noon
Scientific Learning  3pm  Sycle  1pm  Oticon, Inc.  1pm
Corporation  4pm  Interton  2pm  Phonic Ear  2pm
Phonak  5pm  Phonak  3pm  Gennum Corporation  3pm
Hearing Components

FOOD & BEVERAGE
NEW for 2004! Tickets for the Box Lunches will be provided inside your convention badge correspondence for redemption at any of the distribution areas located on the show floor.

BOX LUNCHES
sponsored by STARKEY LABORATORIES
Box Lunches will be provided daily on Thursday, Friday and Saturday of the Expo. Café seating and the Lunch Distribution will take place in the rear of aisles 200 and 2800 of the exhibit hall. Every full conference attendee will receive a daily box lunch ticket good for redeeming at one of the lunch distribution areas located in the rear of the exhibit hall. No cash refunds, credits or substitutions will be given.
Thursday from 12:00 - 1:30pm  Friday from 11:30am - 1pm  Saturday from 11:30am - 1pm

EXPOEXTRAVAGANZA
sponsored by INTERTON
Be sure to drop off your tickets into the drums for the opportunity to win a great prize from Interton. Refreshments will also be available.
Thursday 3:00pm #213  Friday 3:00pm #2313  Saturday 3:00pm #1413

ICE CREAM ANYONE? ICE CREAM CARTS
sponsored by INTERTON & PHONAK
Just in time for those afternoon cravings and pick-me-ups. Be sure to stop and receive a yummy ice cream treat. Ice cream carts will be located on the 200 level meeting rooms by the Business Center beginning at 2:30pm Thursday, Friday and Saturday.

WATER COOLERS
sponsored by NEWPORT AUDIOLOGY CENTERS & PHONAK
Several water stations will be setup on the meeting room level of the center to provide a refreshing break. Take a sip or fill your water bottle to keep your energy up.

SPONSOR CARD
Salt Lake will be ROCKED by the Academy and in order to Rock your world be sure to visit our Diamond, Emerald, Platinum, Gold, Silver & Bronze Sponsors. Each attendee will receive a 2004 Sponsor Card (found inside your Convention Bag). The Sponsor Card will list every sponsor of the 2004 Convention & Expo. Three great prizes will be given away. Once your card is punched, deposit it in the raffle drum located in the Academy Center. Drawing will take place on Saturday, April 3 at 2:45pm. You must be present to win.

WIN

GRAND PRIZE
$1000

FIRST PRIZE
Two Coach Round Trip airline tickets to anywhere in the continental US or Canada and One Complimentary Convention 2005 Registration for Washington, DC March 30 - April 2, 2005.

SECOND PRIZE
One new membership OR one free membership renewal in the Academy for one year.
CONVENTION 2004
MARCH 31–APRIL 3, 2004
Salt Lake City

Thank YOU to OUR Sponsors!!!!

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Star Micronics
Literature Insert

Audiology Rocks Trivia Bowl XV

If you haven’t already, start forming your team now for this highly anticipated Academy tradition of fifteen years that pits students, researchers and practitioners against each other in an exciting battle of wits and memory. This is the one place where your command of obscure audiological tidbits can put you ahead of the pack. Join Trivia Bowl Masters of Ceremonies Gus Mueller and Jerry Northern—and many of your colleagues—for a high-spirited evening of complimentary food, drink and fun.

Based on last year’s success, teams will again utilize state-of-the-art electronic keypads to submit their answers. Scoring will be instantaneous and you can even see how well your team is doing midway through the competition. This promises to be a rockin’ event—Saturday, April 3, from 4:30pm-6:30pm.

Special thanks to Siemens Hearing Instruments (Title Sponsor) and Knowles Electronics and Rayovac Corp. (Co-Sponsors) for making this event possible.

Trivia Bowl Masters of Ceremonies Gus Mueller and Jerry Northern at Trivia Bowl XIV

The coveted Trivia Bowl Trophy and other prizes at Trivia Bowl XIV.
The Academy has long been concerned that some physicians have unqualified staff, including minimally trained “technicians,” perform hearing and balance assessments and bill these services to Medicare as “incident to” services. For this reason, the Academy recently requested that the Centers for Medicare & Medicaid Services (CMS) clarify its policies regarding Medicare coverage of “incident to” services.

In responding to the Academy’s request for clarification, CMS recently stated that hearing and balance tests may not be billed as “incident to” services. Unfortunately, CMS also stated that physicians may bill Medicare for hearing and balance tests performed by other individuals in their offices and under their direction as “physician’s services.”

The Academy believes that this position contradicts CMS’ own regulations and policies. For example, the Medicare Carriers Manual states that “[w]here a physician supervises auxiliary personnel to assist him/her in rendering services to patients and include the charges for their services in his/her own bill, the services of such personnel are considered incident to the physician’s service.” We also believe it is bad public policy, because it provides Medicare beneficiaries no protection from physicians who allow unqualified individuals to perform audiologic testing.

**Background on “incident to” services**

Medicare covers services “furnished as an incident to a physician’s professional service, of kinds which are commonly furnished in physicians’ offices and are commonly either rendered without charge or included in the physicians’ bills.”

Medicare regulations set additional requirements for coverage of such “incident to” services. They provide that, to be covered, “incident to” services must meet all of the following requirements:

- Furnished in a non-institutional setting (i.e., not in a hospital or skilled nursing facility) to non-institutional patients;
- An “integral, though incidental, part” of the service of the physician in the course of diagnosis or treatment of an injury or illness;
- Commonly furnished without charge or included in the physician’s bill;
- Of a type commonly furnished in the office or clinic of a physician;
- Furnished under the “direct supervision” of the physician; AND
- Furnished by the physician or “auxiliary personnel.”

In addition, services billed as “incident to” services may not be specifically listed as a separate benefit in the Social Security Act, the statute governing the Medicare program. That is, if Medicare covers a service under its own separate benefit category, it should be billed under that benefit category, not as an “incident to” service.

An audiologist may not bill Medicare for services performed by other individuals “incident to” the audiologist’s services. Only certain nonphysician practitioners listed in the statute are authorized to receive reimbursement for services “incident to” their own services. These include physician assistants, nurse practitioners and clinical nurse specialists, but not audiologists. Audiologists do not have an “incident to” benefit.

However, a physician may bill Medicare for services performed by an audiologist “incident to” the physician’s services. In fact, any individual may furnish services “incident to” the services of a physician (or nonphysician practitioner with an “incident to” benefit) and have those services covered by Medicare, provided the services in question are within that individual’s scope of practice. However, when a physician bills Medicare for audiology services incident to the physician’s own services, Medicare does not know who furnished the services or whether the services were within that person’s scope of practice.

**What audiology services may be billed as “incident to” services?**

As previously mentioned, CMS recently confirmed that diagnostic audiology services (i.e., hearing and balance tests) may not be billed as “incident to” services. Medicare covers hearing and vestibular tests as “other diagnostic tests.” Since these tests have their own separate benefit category in the Medicare statute, they may not be billed as “incident to” services.

Any other services performed by an audiologist may be billed as an “incident to” service, provided they meet the other regulatory criteria listed above. These may include treatment services such as cerumen removal, aural rehabilitation, and tinnitus management services.

For his or her services to be covered as “incident to” services, an audiologist must be “auxiliary personnel.” “Auxiliary personnel” includes an employee, a leased employee, or an independent contractor of a physician or of an entity that employs or contracts with a physician. A “leased employee” is an individual employed by two employers pursuant to a contract whereby one employer hires the services of an employee of the other and the relationship is recognized by the applicable state law. An “independent contractor” is an individual (or an entity, such as an audiology corporation, that has hired such individual) who performs part-time or full-time work for which the individual (or entity) receives an IRS-1099 form.

For “incident to” services, “direct supervision” by the physician is required. This means that the physician must be “present in the office suite and immediately available to furnish assistance and direction throughout the performance of the procedure.” It is not necessary that the physician be present in the room when the procedure is performed.

Although CMS has clarified that hearing and vestibular tests may not be billed as “incident to” services, this has not solved the problem of unqualified individuals furnishing these tests to Medicare beneficiaries. As stated above, CMS has taken the position that “physicians may bill for diagnostic audiology services, or any other services within their scope of practice under state law, when the service is performed by their staff, in their offices, under their direction, and when those services are not billed as incident to the physician’s services.”

In essence, CMS’ position is that Medicare covers hearing and balance tests performed by a physician’s staff as “physician’s services,” provided such tests are performed in the physician’s office and under the physician’s direction.

As stated at the beginning of this article, the Academy believes that this position contradicts CMS’ own regulations and policies. More importantly, the Academy believes it is bad public policy, because it makes it possible for physicians to bill Medicare for services performed by unqualified staff. If billed as “physician services,” hearing and
vestibular tests performed by unqualified individu-
als on a physician’s staff will look the same to
Medicare as tests performed by the physician.
Medicare beneficiaries may not realize that the test-
ing was done by a technician, nurse, or commercial
hearing aid dealer rather than a qualified audiolo-
gist. Many Medicare beneficiaries do not realize,
for example, that hearing aid dispensers are
authorized to perform hearing testing only for the
purpose of fitting hearing aids and are not author-
ized to perform diagnostic testing.

WHAT CAN AUDIOLOGISTS DO
ABOUT THIS PROBLEM?

To persuade CMS that it should address this
problem, the Academy needs to present CMS with
evidence that unqualified individuals are perform-
ing hearing and balance tests in physician offices
and that Medicare beneficiaries are being harmed
as a result of this practice. (Recently, CMS has
begun to look at the problem of unqualified individ-
uals furnishing certain other services (i.e., outpa-
tient therapy services), so this is an issue that CMS
cares about.)

Here’s what you, as an audiologist, can do to
advocate for change to this policy:

Obtain your own Medicare Provider
Identification Number (PIN) and bill Medicare
directly for hearing and balance tests that you per-
form, even if you furnish the tests as an employee
in a physician’s office. CMS collects data on which
professions are providing which services to
Medicare beneficiaries. (For example, CMS data
currently show that the large majority of compre-
hensive hearing evaluations (CPT 92557) are per-
formed by ENTs — because they are billed by ENTs
— even though they are actually performed by
audiologists.) CMS then can use this data to eval-
uate the cost-effectiveness and clinical outcomes
of hearing and balance tests performed by audiolo-
gists compared to those performed by physicians.
If all hearing and balance tests performed by
audiologists were billed by audiologists, we believe
the data would show that tests performed by audi-
ologists are more cost-effective and have better
clinical outcomes than the hearing and balance
tests performed by non-audiologists. Audiologists
who do not have a PIN may obtain one by complet-
ing a CMS 855 application; the form is available at
www.cms.hhs.gov/providers/enrollment/forms/.

If you believe a physician is having untrained
staff perform audiology procedures and billing
Medicare for such procedures, please provide doc-
umentation of these cases to the Academy so that
we can assess the extent of the problem and possi-
bly pass this information along to CMS."

REFERENCES

i Medicare Carriers Manual § 2050.1, recodified as CMS Manual
System, Pub. 100-2, Medicare Benefit Policy, Chapter 15, § 80.1.
ii 42 U.S.C. § 1395x(s)(2)(A). See also Medicare Carriers
Manual § 2035.
v 42 U.S.C. § 1395x(s)(3).

vii Letter from Dorothy A. Shannon, PhD, CMS, dated
Often people take risks every day without really being aware of it. In a society where more and more lawsuits are filed against healthcare professionals, are you assured that the professional liability coverage you have is enough? Because of the rising trend of litigation across the country, more and more health care professionals today are protecting themselves by purchasing their own individual malpractice policy to cover them in the event they are named in a lawsuit. There are many reasons for protecting yourself with an individual policy that insures just you, but one of the most compelling reasons is the peace of mind that comes with knowing your best interests will be served if you are named in a lawsuit.

WHAT TYPES OF POLICIES ARE OUT THERE?

There are two types of policies, occurrence and claims-made coverage. An occurrence policy covers you for any incident that occurs during the policy term, regardless of when the claim is filed. As long as you were named under the policy at the time of the incident, you are covered. The endorsed provider for the American Academy of Audiology, Healthcare Providers Service Organization (HPSO), offers an occurrence policy form. A claims-made policy provides coverage for an incident that occurs during an active policy period only if the claim is also filed during an active policy period. If you are named in a lawsuit, the incident must occur during the policy period when the lawsuit is filed or you will not be protected by the policy. If you decide to end a claims-made policy, you can purchase an Extended Reporting Period endorsement also known as tail coverage through the insurance company that provided the claims-made policy. Tail coverage will extend the time that a claim can be reported, but the incident will still need to occur while the policy was active. One reason HPSO offers an occurrence policy form is this benefit of not having to purchase an additional endorsement to cover for future claims that may be filed.

If you have a policy, whether it is your own or through your employer, know how you are covered. Find out the details so you are not caught unaware. You may be shocked how policies differ from each other. HPSO, the American Academy of Audiology endorsed provider, currently protects over 70 different professions nationwide with individual malpractice at very affordable rates. For more information on what this policy offers, go to www.hpso.com or call 1-800-982-9491.

Article provided by Healthcare Providers Service Organization (HPSO).
The American Board of Audiology (ABA) is committed to educating doctor of audiology students about the value of professional certification. It is our belief that students can benefit from learning about the differences between mandatory licensure and voluntary professional certification. Students will also benefit from mentoring relationships with professionals established in the field, and professionals can benefit from being in touch with the next generation. To demonstrate our commitment to these ideas, the Board of Governors (BOG) has created a Student Liaison Position.

The Student Liaison position was designed to help ABA educate students about Board Certification in Audiology, and equally, for the liaison to provide the student perspective regarding board agendas such as certification requirements and continuing education. ABA recognizes that certification standards must be periodically revisited so that certificate holders are assured the ABA Certification is rich in value and displays continued achievement. We believe that the board will be enriched and enlightened by the viewpoints presented by students preparing to enter the field of audiology.

The student liaison’s fifteen-month term will commence at the Board of Governors meeting at the annual American Academy of Audiology convention. After a successor is appointed the following year, the current Student Liaison will continue for an additional three months, which will aid in orientation. The student will be invited to participate in appropriate parts of the monthly meetings of the board, as well as to participate in appropriate committees or task forces. As training in ethics is a founding principle for ABA certification programs, the Student Liaison will be required to attend a course in ethics during the AAA convention. Attendance at an ethics course will be a means of introduction to the requirements of board certification.

The ABA is pleased to announce the first appointment to the Student Liaison position, Jennifer Peacock, a third-year doctor of audiology student from the University of Florida. Jennifer has agreed to begin her duties as Student Liaison, and her first task is to approach the National Association of Future Doctors of Audiology (NAFDA), investigating the possibility of establishing student-certificant encounters as a method to help mentor these emerging young professionals. ABA certificants will be contacted about their willingness to be involved in this most worthy endeavor.

In the fall of 2004, the ABA will be contacting universities regarding nominations for the Student Liaison position. The ABA will be looking for the best and brightest students these audiology programs have to offer to fill this most challenging and rewarding position. The Student Liaison will contribute to the continuing development of Board Certification in Audiology and gain experience in the operation of a professional board. Students and practicing audiologists alike must recognize that commitment to the profession of audiology goes beyond the classroom or our practices. The development of the Student Liaison position is one way the American Board of Audiology reinforces this reality.

The American Board of Audiology was created by audiologists for audiologists. It is only natural that we include in our evolution those individuals who represent the future of this celebrated profession - doctor of audiology students. We welcome comments from our certificants regarding this newly established position.
**EPB ADVISORY OPINION**

“A patient bought hearing aids from another practice due to cost savings but wants our clinic to fit/program the hearing aids due to our clinic’s convenient location. The hearing aids are still in the 30-day trial period with the other facility. Is it ethical/legal for us to do this fitting?”

We also have another patient who wants us to take an ear impression so that he can buy a hearing aid from the internet. If we provide the impression, what is our obligation if the fit is poor? And, again, what is our obligation to fit/program this hearing aid?”

**EPB Responds:** In response to the first part of your question, there is nothing unethical about providing hearing aid services to a patient who comes to your facility and requests them. Given this unique situation, however, if you desire to provide such services, there are several things that you could do to avoid problems and conflicts.

First, you should advise the patient that since they purchased the hearing aids from another facility, there will be a charge for each professional visit and provide details on exactly what those charges would be. (The patient may then decide to return to the original facility, which is certainly their prerogative.) Second, it would be wise to communicate with the person who sold the hearing aids to the patient and advise him/her that you have been asked by the patient to provide clinical services.

It should be emphasized that an audiologist is not obligated to provide services to this patient. If you believe that the situation would not provide the best services to this patient or if you are uncomfortable with this arrangement (someone else choosing the hearing aid and you fitting it, possibly working with an aid with which you are not familiar, warranty and return issues, etc.), you can recommend to the patient that they return to the original dispenser.

The second question addresses a timely issue, as internet and mail order hearing aid sales are becoming increasingly common. The first issue to address depends upon the state in which you reside. In some states, such as Florida, internet and mail order hearing aid sales are illegal. If this is the case in your state, then your obligation would be to inform the patient of the state law and not participate in fostering an illegal action by the patient by providing the ear impression. If it is not illegal to purchase hearing aids through the mail in your state, then there is no reason that you could not take an impression and charge the patient for this service. In regard to your obligations relative to any product made from your impression, that is your decision and should be outlined clearly for the patient. If you want to simply make the impression and have nothing else to do with the resulting hearing aid, that is acceptable, but you should make it clear to the patient that any follow-up services should be obtained elsewhere as that is not your practice model. If you wish to deal with the mail-order purchased hearing aid, then you should specify what your services and prices will be.

**CEASE AND DESIST ORDER ISSUED.** An Academy member was found in violation of Rule 5d “Individuals shall maintain documentation of professional services rendered.” The member routinely placed photocopied, prototypical tympanogram print outs in patient files in lieu of actual tympanometric printouts.

**NO VIOLATION.** An Academy member was accused of violating Rule 2d “Individuals shall provide appropriate supervision and assume full responsibility for services delegated to supportive personnel. Individuals shall not delegate any service requiring professional service to unqualified persons.” The member was listed as faculty for a 3-day course for audiometric technicians that included teaching, among other things, basic audiologic diagnostic procedure (air, bone, speech, and tympanometry). While the EPB believes that audiologists who employ inappropriately trained individuals violate this Rule and potentially other Rules, the EPB has no standing to act against the instructor of the course, as patient care is not provided during the training seminar.

**NO VIOLATION.** An Academy member was accused of using unnecessary diagnostic procedures and over billing. Although EPB members did not necessarily concur with the use of test procedures utilized by the member, the EPB did not find evidence that the test procedures were ordered for a reason other than identifying site of lesion.

**REPRIMAND.** An Academy member was found in violation of Rule 2f “Individuals shall maintain documentation of professional procedures and over billing. Although EPB members did not necessarily concur with the use of test procedures utilized by the member, the EPB did not find evidence that the test procedures were ordered for a reason other than identifying site of lesion.”

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**NO VIOLATION.** An Academy member was accused of billing for services not rendered. Evidence of one case where an encounter form was placed in the file of a patient who cancelled the appointment was brought to the EPB. The member’s explanation that the billing sheet and test results were misfiled in another patient chart was accepted as plausible.
Audiology Rocks in Salt Lake City. With over 150 sessions, courses and workshops, educational opportunities will abound at our Convention 2004 in Salt Lake City. Hand-in-hand with the featured sessions, research podium presentations, and instructional courses will be a plethora of extra-curricular activities to help you network, socialize, or just plain relax. The Convention is a great forum to meet with colleagues, your former professors, talk with suppliers and exhibitors and hopefully meet new friends. Academy-sponsored, exhibitor-sponsored and private parties and dinners are all part of the convention experience.

With Convention just around the corner, it is important to remember that conflict of interest should be avoided by all Academy members. Both the AAA and the ADA endorse, support and urge their members to abide by the newly published “Ethical Practice Guidelines on Financial Incentives from Hearing Instrument Manufacturers” (see AT, 15:3, March-April, 2003, pg 19-21 and posted at www.audiology.org). Conflicts of interest are defined as “incentives that cause, or can appear to cause, a loss of independent judgment, a loss of impartiality or a loss of objectivity.”

Salt Lake City convention-goers may be unsure of which social events are “okay” to attend. With a little pre-planning, it is easy to select activities that will be both fun and enhance collegial exchange. Remember the cost of any manufacturer-sponsored social events should be modest (typically under $100 value) and have no strings attached. The event must be “open” to all, although the host may restrict it to those who RSVP or those who stop at their exhibit booth. Invitations for “best customers” should be avoided. The social aspects of the Convention are meant to facilitate discussion among members and serve your professional interest. Your participation in these sponsored events should be experienced with no overt or covert feelings of obligation.
As the second session of the 108th Congress begins and this election year moves into full swing, the direct access bills in both the House and Senate continue to gain bipartisan support. The Hearing Health Accessibility Act, which would give Medicare beneficiaries the option of seeing an audiologist directly, remains the Academy’s highest priority. You can find copies of both the House and Senate bills, H.R. 2821 and S. 1647, on the Academy’s Government Relations web page at www.audiology.org/professional/gov/.

The Hearing Health Accessibility Act would do one thing and one thing only: allow Medicare beneficiaries to go directly to an audiologist for hearing and balance tests. That is, it would eliminate the Medicare program’s physician referral requirement for audiologic diagnostic tests. It would not require Medicare beneficiaries to see an audiologist first; patients who want to could still see their physician first. Nor would it expand the number of audiology services covered by Medicare.

As Usual, We Need Your Help!!

While the Academy advocates for H.R. 2821 and S. 1647 on Capitol Hill, grassroots support for this legislation is critical and necessary. In order to move the House and Senate bills through the legislative process, Members of Congress must hear from their constituents that this change is needed and in the best interest of the Medicare program and individuals with hearing loss. They need to hear from all those concerned: audiologists, Medicare beneficiaries and their caregivers, even physicians. It is especially important at this stage to contact Members of Congress who sit on the committees with jurisdiction over these bills, the House Energy and Commerce Committee and the Senate Finance Committee.

Here is What You Can Do:

• Write to your Representative asking him/her to co-sponsor H.R. 2821, and write to your Senators asking them to co-sponsor S. 1647. (Model letters for this purpose can be found on the Academy’s Government Relations web page at http://www.audiology.org/professional/gov/ under “Sample Audiologist Cosponsor Letter to House” and “Sample Audiologist Cosponsor Letter to Senate.”) At the time of the writing of this column, there were 30 co-sponsors of H.R. 2821 in the House. For a list of current cosponsors, a link to the official list is provided on the Academy Government Relations web page.

• Write to the Chairmen and Ranking Democrats of the Senate Finance Committee (Sens. Grassley R-IA and Baucus D-MT), the House Energy and Commerce Committee (Reps. Bilirakis R-FL and Brown D-DH), and the House Ways and Means Committee (Reps. Johnson R-CT and Stark D-CA) urging them to support the legislation. (Model letters for this purpose can be found on the Academy’s Government Relations web page.) The following talking points can help you construct your argument for the legislation:

• Direct access would improve access to hearing care for Medicare beneficiaries.

• Direct access would not expand audiologists’ scope of practice and would not expand the number of audiologic services covered by Medicare.

• The Department of Veterans Affairs (VA) and the Office of Personnel Management (OPM) both allow beneficiaries of their health programs direct access to audiologists.

• Medicare already allows beneficiaries direct access to a range of nonphysician practitioners, including podiatrists, optometrists, chiropractors, nurse practitioners, physician assistants, nurse-midwives, and clinical social workers.

• Direct access would continue to ensure high-quality hearing care; audiologists are trained to screen for medical conditions and refer patients with medical conditions to a physician.

In the Meantime...

Until direct access legislation is enacted, physician referrals are required for Medicare coverage of hearing and balance tests. Moreover, some Medicare carriers appear to be paying increasing attention to documentation of physician referrals, by both audiologists and referring physicians. If you believe your Medicare carrier is unfairly denying reimbursement because of documentation problems, please contact Jodi Chappell, Director of Health Care Policy, at 703-226-1032 or jchappell@audiology.org.

2004 Medicare Reimbursement Rates

CMS has issued the Medicare Physician Fee Schedule for 2004. Medicare Part B payment rates for most audiology services in 2004 are about the same as they were in 2003. The exceptions are CPT codes 92541-92548 and 92556, which experience significant decreases in 2004. Payment rates for all audiology services would have dropped in 2004, but the Medicare Prescription Drug, Improvement, and Modernization Act passed by Congress mandated a 1.5 percent increase in fee schedule payments in each of years 2004 and 2005. A summary of the 2004 Medicare Physician Fee Schedule can be found at www.audiology.org/professional/members/medicare.

INTRODUCTION
The purpose of this document is to provide a detailed guideline related to what children should be considered for amplification, what data are necessary to start and continue the amplification process, how essential features of the amplification system should be chosen, what testing should constitute verification and validation of the amplification system, and suggestions for appropriateness orientation, training, and follow-up. These guidelines are meant to cover the newborn, infant, and child. These guidelines are not meant to suggest appropriate communication modes or academic settings for these children. In addition, children may have a variety of other co-existing conditions with hearing loss and these guidelines must be considered within the context of each child’s circumstances. The general goal of any hearing aid fitting is to provide a signal that makes low, moderate, and high intensity sounds audible but not uncomfortable and provides excellent sound quality in a variety of listening environments.

1. PERSONNEL QUALIFICATIONS
a) Audiologists are the professionals singularly qualified to select and fit all forms of amplification for children, including personal hearing aids, frequency-modulated (FM) systems, cochlear implants and other assistive listening devices (The Pediatric Working Group, 1996). Audiologists have a master’s and/or doctoral degree in audiology from a regionally-accredited university.
b) Audiologists must meet all state licensure and/or regulatory requirements.
c) Audiologists fitting hearing aids on infants and young children should have the expertise and the test equipment necessary to complete all tests for hearing aid selection, evaluation, and verification procedures described herein.
d) Audiologists should adhere to procedures consistent with current standards of practice to assess auditory function in infants and children (Audiology Clinical Practice Algorithms and Statements, 2000).
e) Audiologists should be knowledgeable about federal and state laws and regulations impacting the identification, intervention, and education of children who are deaf and hard of hearing.

2. CANDIDACY
a) Introduction
Amplification with hearing instruments should be considered for a child who demonstrates a hearing loss, including sensorineural, conductive, or mixed hearing losses of any degree. The duration and configuration (bilateral or unilateral) will assist the audiologist in the decision to fit a child with personal hearing aids. Additional factors such as the child’s health, cognitive status, and functional needs will influence the time-line of fitting hearing aids.
b) Methods for the assessment of hearing
For newborns and infants under the developmental age of 6 months, estimates of hearing sensitivity must be supported by electrophysiological measures including auditory brainstem response (ABR) threshold assessment. Frequency-specific air-conduction and bone-conduction ABR thresholds should be obtained. Frequency-specific ABR is necessary for accurate estimation of the degree and configuration of hearing loss. A click-ABR threshold alone is not sufficient for accurate hearing aid fitting. Acoustic immittance measures, including tympanometry and middle ear muscle reflexes, and otoacoustic emissions (OAE) are necessary to determine the type of hearing loss present.

Differential diagnosis continues to be refined and these measures should be applied to the assessment of hearing in children as they become available and interpretable. Other electrophysiologic measures may become a valued part of the assessment of hearing in the pediatric population. At a minimum, low and high frequency, ear-specific information should be obtained in order to prescribe appropriate amplification. These data are developed over the course of evaluating the infant or child and the hearing aid fitting may begin before all data are obtained.

For older infants and young children, behavioral thresholds should be obtained using visual reinforcement audiometry (VRA), or conditioned play audiometry (CPA) test techniques appropriate for the child’s developmental level. Ear-specific and frequency-specific air and bone conduction thresholds are essential for providing information needed for accurate hearing aid fitting (The Pediatric Working Group, 1996).
c) Additional factors
1) Middle Ear Conditions
The presence of chronic or recurrent middle ear conditions that can affect hearing threshold results or the ability to wear an occluding earmold should be considered. When determining hearing aid candidacy for infants or children with borderline or minimal hearing losses, middle ear status is of particular concern in determining the likelihood of a transient condition.
2) Other Health Concerns
Other health concerns or conditions that may affect the ability to obtain reliable threshold information must be considered. The use of physiologic test methods (ABR, OAE) may be necessary even with older children who have additional disabilities.
d) Special Considerations
Special consideration should be given to the fitting of amplification on children with unilateral hearing loss, minimal or mild hearing loss, profound hearing loss, and auditory neuropathy.
1) Unilateral hearing loss
Use of hearing aid amplification is indicated for some children with unilateral hearing losses. The decision to fit a child with a unilateral hearing loss should be made on an individual basis, taking into consideration the child’s family’s preference as well as audiologic, developmental, communication, and educational factors. Amplification options such as personal FM systems should also be considered. Use of communication strategies (noise reduction, positioning, etc.) may prove to be beneficial and easily accomplished for the infant or toddler with unilateral hearing loss.

Position Statement of the American Academy of Audiology

Pediatric Amplification Guideline

Task Force Members
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impairment. The use of Contralateral Routing of Signal (CROS) amplification requires particular care. Its design is to overcome the problem caused by the head shadow effect. This could be especially helpful in a quiet environment and when the signal of interest originates from the direction of the non-functioning ear. However, one recent study (Kenworthy, Klee, & Tharpe, 1990) indicated that CROS amplification may not be beneficial for children in a classroom setting, because of the introduction of additional noise to the normal-hearing ear.

2) Minimal-mild hearing loss
Current evidence suggests that children with minimal and mild hearing losses are at high risk for experiencing academic difficulty (Bess, Dodd-Murphy, and Parker, 1998; Bess and Tharpe, 1984). As such, children with minimal and mild hearing loss should be considered candidates for amplification and/or personal FM system or soundfield systems for use in school.

3) Profound hearing loss
A finding of no response by ABR should not exclude a child from hearing aid candidacy, as residual hearing may exist at intensity levels greater than those capable of eliciting a standard ABR response. Children with confirmed profound hearing loss still may experience benefit from hearing aid amplification. An infant or child with severe to profound hearing loss is a cochlear implant candidate.

4) Normal peripheral hearing sensitivity
In some cases, children with normal peripheral hearing sensitivity may benefit from amplification (Matkin, 1996). These cases may include children with auditory processing disorders (APD), auditory neuropathy (AN) or dysynchrony; and children with unilateral hearing impairment when an FM system is coupled to the normal-hearing ear. In such cases, close audiologic monitoring of hearing sensitivity, and careful control of the output of the amplification is required.

3. PRE-SELECTION ISSUES AND PROCEDURES
a) Introduction
Many decisions must be made prior to selecting amplification for a child. These decisions may be based on individual needs and abilities, diagnostic information (e.g., degree of hearing loss, physical characteristics, etc.), environment in which the individual functions, empirical evidence, and/or clinician experience. Many of these decisions must be revisited on an ongoing basis as the child matures.

b) Air vs bone conduction
Air conduction hearing aids are considered the more conventional hearing aid type and provide amplified sound into the ear canal of the user. A bone conduction hearing aid typically is considered for children who are unable to wear air conduction devices as a result of malformation of the outer ear or recurrent middle ear drainage. A bone conduction hearing aid may be considered for children with unilateral conductive hearing loss to ensure that the intact cochlea on the side with the conductive hearing loss is stimulated during development while waiting for corrective surgery. The bone anchored hearing aid is a device that is surgically implanted into the skull behind the ear and produces a bone conducted signal that is transmitted through the skull to the inner ear. This type of device is useful for an individual who must use a bone conducted rather than an air conducted signal on a permanent basis. At this time, bone anchored hearing aids do not have the approval of the U.S. Food and Drug Administration (FDA) for use in children less than five years of age. A bone anchored hearing aid may be considered as an option for an older child.

c) Style: body aid vs. behind-the-ear (BTE)
In the canal (ITE) vs. completely-in-the-canal (CIC)
Style will be dictated by the child’s hearing loss and potential for growth of the outer ear and individual needs. The outer ear may continue to grow well into puberty, thus dictating the BTE style. When growth occurs, only the earmold has to be replaced. The BTE is more durable (with no circuitry directly exposed to cerumen) than in-the-ear styles, is less likely to produce feedback when fitted with an appropriate earmold, and allows for a variety of features that may be essential for the child (i.e., telecoil circuitry, direct audio input connection, built-in FM circuitry). An in-the-ear or even completely-in-the-canal hearing aid may be an option for older children as long as the audiologist, child, and parents recognize the pros and cons of each style (e.g., increased cost, lack of DAI coupling to assistive technology, susceptibility to damage, etc.).

As more infants are identified at an earlier age as a result of universal newborn screening, the audiologist is faced with placing a BTE case on a very small pinna often resulting in feedback. To alleviate feedback the audiologist may want to consider coupling an assistive listening device to the BTE hearing aid. The microphone is then placed near the speaker (connected to a transmitter). The desired signal is sent to the receiver (near the child) and the sound is coupled to the hearing aid through direct audio input or telecoil. Because of the distance between the microphone and the receiver, feedback is greatly reduced. This solution, however, eliminates the infant’s ability to monitor his/her own voice because the microphone of the hearing aid has been turned off.

d) Routing of the Signal
1) Bilateral vs unilateral listening
It is well documented that bilateral hearing is necessary for localization and for best performance in noise (Hawkins & Yacullo, 1984; Valente, 1982a, 1982b). In addition, investigations have reported auditory deprivation in children fitted with unilateral amplification (Boothroyd, 1993; Hattori, 1993). Therefore, it is recommended that, unless contraindicated, children be fitted with bilateral amplification.

2) CROS, BICROS, transcranial fitting
For children with severe to profound unilateral hearing loss (or very poor word recognition unilaterally), Contralateral Routing of Signal (CROS) system may be considered. A CROS system can be achieved by putting a microphone at the location of the impaired ear and transmitting the signal to the normal ear through:

1) a wire or FM signal (conventional CROS),

2) through bone conduction
For the child with severe to profound hearing loss (or very poor word recognition) in one ear and an aidable hearing loss in the other ear, a BICROS system may be considered.

3) Implantable devices
No middle ear implantable devices for children are available at this time.

e) Receiver type
There are data that suggest that the Class D (or B) receiver is far superior to the
f) Bandwidth
Research in adults supports the use of a wide bandwidth for individuals with mild to moderate hearing losses (Skinner, 1983). A number of investigators have studied bandwidth effects in adults with moderate-to-severe hearing loss (Ching, Dillon, & Byrne, 1998; Hogan & Turner, 1998; Turner & Cummings, 1999). These studies suggest that the provision of high-frequency amplification may not always be beneficial and can even degrade speech perception for some individuals. In these studies, there is considerable variability in performance across individuals and no consensus on the degree of hearing loss at which benefit from high-frequency amplification no longer occurs (Moore, 2001). Kortekaas and Stelmachowicz (2000) and Stelmachowicz, Pittman, Hoover, and Lewis (2001) found that hearing-impaired children require a wider bandwidth than adults with similar hearing losses to perceive high-frequency speech sounds, particularly when listening to female and child talkers. Ching, Dillon, and Katsch (2001) indicate that there is no conclusive evidence in this area at this point and time. Therefore the clinician must consider each child as an individual as we wait for more evidence in this area. In addition, the clinician should not confuse a lack of increased performance with high-frequency amplification with an actual decrease in performance.

g) Memories
Memories allow more than one amplification characteristic for use by the wearer in different listening situations. The user (or parent) can choose among memories based on the listening situation. In the pediatric population, multiple memories may be very useful if there is a predictable fluctuating hearing loss so that the hearing aid output can be easily adjusted accordingly. In addition, a programmable telecoil memory will also be useful.

h) Earmold
The audiologist should consider the style, material, color, length, and frequency of remaraks for the earmold. The need for excellent fitting earmolds has increased with the advent of wide dynamic range, wideband hearing aids. The audiologist is able to make a wide range of sounds audible in an automatic way by using compression circuitry with no volume control. Without a volume control, the child (or parent) cannot turn down the hearing aid if it starts to feed back as a result of poor earmold fit (after growth of the outer ear). The use of automatic technology forces the audiologist to be more proactive about regular earmold changes. The recent advent of automatic feedback control through various digital signal processing techniques may alleviate this problem temporarily while the new earmold is ordered. For infants, earmold replacement may be as frequent as monthly.

Venting in the earmold may be appropriate for some children depending on the configuration and degree of hearing loss as well as the status of their outer and middle ear. The audiologist should approach venting earmolds in children cautiously. Diagonal venting may cause the hearing aid to lose some of its high frequency response and certain placements of venting may create problems in sound channel tubing retention.

i) Sound channel
The sound channel consists of the earhook and tube that leads through the earmold and sends sound into the ear canal. Just as a horn (increased diameter at the end of a sound channel) increases the high frequency response, a reverse horn will roll off the high frequencies. These are often the frequencies where the child needs the most amplification. A reverse horn is a common concern in an infant or young child because the earmold is so small. It is essential that the end of the sound channel be checked visually for any crimping. An electroacoustic measure that includes the earmold will reveal any roll off in high frequency response as will probe microphone measurements that include the individual’s earmold connected to the hearing aid.

Manufacturers generally send adult size earhooks unless otherwise instructed. A pediatric earhook can be the difference between a well situated BTE and a BTE that falls off of the ear. Earhooks add resonant peaks to the hearing aid response. These peaks can increase the chance of acoustic feedback and may dictate the maximum output setting of the hearing aid thereby unnecessarily decreasing the headroom (the difference between the level of speech and the saturation level of the hearing aid) of the instrument. A filtered (damped) earhook will smooth the response (Scollie & Seewald, 2002).

j) Microphone
Microphone location impacts the response of the signal that is presented to the ear. For most pediatric users, the microphone will be at the top of the ear because they will use the BTE style.

The BTE and ITE styles can be equipped with omni-directional microphones (microphones that respond to signals equally around the head) or directional microphones (microphones that reduce signals from the sides and back). Directional microphones can enhance hearing in noise in adults (Hawkins & Yacullo, 1984). The user may switch between microphone types by using a toggle switch, button, or remote control device. This is not a realistic choice for infants and young children. The use of a traditional directional microphone also implies that the signal of interest is in front of the listener. Young children learn by listening to the adults around them and may not be looking at them directly. In such situations, there may not be a primary talker. In some of the newest digital hearing aids, this switching occurs automatically based on a sampling of the incoming signal. Type of microphone technology will be dictated by the age and abilities of the child as well as listening environment. Benefits and limitations of directional microphone technology with children are currently unknown. Through the selection and deselection of memories, some hearing aids allow the audiologist to choose when to introduce the use of directional microphone technology (activating the programmable memory), thereby equipping hearing aids with potential that may not be used right away with a young child.

When directional microphones are used with older children, the audiologist should ensure that the microphone response in the directional setting is equalized to the microphone response in the omnidirectional setting or audibility for low frequency sounds is lost.
k) Controls for fine-tuning
With children, it is frequently necessary to conduct fine-tuning of the hearing aid gain and output characteristics. The audiologist often has more flexibility in fine-tuning with programmable instruments than with potentiometers (screwdriver controlled). As more and more infants are fitted with hearing aids as a result of universal newborn screening, the use of flexible technology becomes even more critical. The hearing abilities of these babies continue to be defined as they mature and flexible hearing aids can be changed to reflect the new information obtained from the diagnostic procedures. In addition, children may have progressive hearing losses. A flexible hearing aid is a cost-effective solution for these children because the response of the hearing aid can be changed to meet the child’s needs as the hearing loss changes or as more complete information is obtained.

l) Previous Experience
The audiologist’s decisions for all of the features described in this section may be impacted by the child’s previous experience. Only the older child will have previous experience, but the impact of previous experience should be considered when working with the infant. There are data to suggest that hearing aid users will become accustomed to whatever signal processing they experience and will come to prefer it (Palmer, 2001). This puts a great deal of burden on the audiologist to provide the very best audibility and sound quality to the first-time user as this is the signal to which he/she will adapt. This is not to say that a current user of one technology (e.g., linear processing) cannot adapt and benefit from another technology that the audiologist may deem appropriate at the time of a replacement hearing aid fitting (e.g., wide dynamic range compression). Children may require an adjustment period before they tolerate and benefit from the newer technology, just as we expect adjustment to frequency transposition, cochlear implant signal processing, etc.

m) Telephone Access
The Developmental Index of Audition and Listening (Palmer & Mormer, 1999) illustrates that the telephone is an integral part of a child’s life from the time when they know that someone is calling, extending through their attempts to participate in telephone communication with a parent’s help, to the time when they are using the telephone to make plans with their friends. It is essential that the audiologist provide telephone access for even the youngest hearing aid wearers and take the time to educate the parents on how the solution works (this may take a variety of training sessions until the parents or guardians are comfortable).

n) Ability to couple to assistive listening technology
The child’s hearing aids may be coupled to assistive technology through the telecoil, direct audio input, built-in FM receiver, or FM receiver attachment. The assistive listening device will be the best solution for listening in noise and/or listening at a distance. Selection of instruments that are compatible with FM systems, particularly the specific FM system provided at school may be warranted. It is critical to know the coupling requirements of the school system.

o) Battery Doors
The audiologist should recommend tamper-resistant battery doors for younger children.

p) Volume control
The need for a volume control is dictated by the signal processing scheme that is used in the hearing aid and the user’s previous experience (if any). If the audiologist does not expect the child to make these adjustments, wide dynamic range compression signal processing will be advantageous. Adjustment of a volume control wheel can provide a short-term solution to feedback caused by poorly fitting earmolds. If a volume control is present, the clinician must decide if the child should have access to manipulating the control or if a locking volume control is preferred (access is then limited to the clinician and perhaps parent/caregiver). Linear signal processing implies that a volume control is not only included, but is manipulated since the gain for a linear system is targeted to moderate level input signals. One assumes that the user would need to turn down more intense inputs and turn up quiet inputs to maintain audibility and comfort.

The unique combination of the above decisions will lead to the selection of particular hearing aids for a particular child. Some decisions exclude other choices and a compromise may have to be reached by prioritizing these choices.

4. CIRCUITRY-SIGNAL PROCESSING
Although certain signal processing schemes require digital processing, the discussion here is only relevant to the strategies, not digital versus analog processing to implement those strategies. That is, the appropriate signal processing question is not, in our opinion, whether we should select digital or analog hearing aids, but rather, what signal processing schemes are appropriate. In some cases the desired signal-processing scheme may require digital signal processing, in other cases it may not. It is likely that all hearing aids will be digital within the next five years and the analog vs. digital decision will be irrelevant. The choice of appropriate features for each individual will be paramount.

a) Basic Requirements
1) The system should avoid distortion.
2) The system should allow frequency/output shaping to provide audibility based on an appropriate prescriptive method.
3) The system should allow frequency/output shaping to avoid tolerance issues based on an appropriate prescriptive method.
4) The system should employ amplitude processing that ensures appropriate audibility over a range of typical speech sounds from soft to loud. It is likely that some form of amplitude compression may be necessary to achieve this goal for the common cases of reduced residual dynamic range of hearing. Wide-dynamic range amplitude processing may routinely be necessary to allow for optimal audibility of soft to loud inputs (Jenstad, et al., 1999, 2000).
5) Output limiting is independent of the signal processing that is provided in the dynamic range. Compression output limiting has been shown to provide superior sound quality as compared with peak clipping output limiting (Hawkins & Naidoo, 1993; Preves & Newton, 1989).
6) The system should include sufficient electroacoustic flexibility to allow for changes in required frequency/output characteristics related to growth of the child (e.g., a larger ear canal will result in a smaller real-ear-to-coupler difference, etc).

b) Current and Future Processing Schemes
- Until sufficient data become available to exclude the following schemes, each should be considered viable for pediatric fitting of hearing aids.

1) Automatic feedback control, to allow for use of amplification while the child or infant is held or placed in close proximity to other objects. Caution is advised in cases in which the hearing aid requires a gain reduction in order to prevent feedback. In such cases, the potential loss of audibility of important sounds must be considered.

2) Multiple channels to allow for finer tuning of the response for fitting unusual or fluctuating audiograms, application of wide dynamic range compression, increasing the specificity of noise reduction, allowing specialized feedback and occlusion management.

3) Expansion to reduce low-level noise (e.g., microphone noise and over-amplification of soft sounds associated with very low-threshold compression).

4) Compression to allow fitting of the large variation of input levels found in speech and environmental sounds into the dynamic range of the child with hearing loss. Compression also is used as a limiter, providing comfort and good sound quality for the output of intense signals.

5) Frequency transposition and frequency compression have yet to be sufficiently validated. This type of signal processing might be recommended only when the frequencies to be transposed cannot be made audible with non-transposing aids.

c) Many schemes under development to reduce background noise (e.g., envelope modulation counters [digital noise reduction]) and/or enhance speech perception (e.g., spectral enhancement, temporally or spectrally based selective speech enhancement) cannot be recommended until data relative to their effectiveness become available.

5. HEARING INSTRUMENT SELECTION/FITTING CONSIDERATIONS IN CHILDREN

During the selection process, a determination of appropriate circuitry and processing schemes should be based on the degree, configuration, and type of hearing impairment as well as consideration of familial and economic factors.

Selection and verification protocols are predicated on the availability of frequency-specific threshold data.

a) Individual or age appropriate ear acoustics should be accounted for in the hearing instrument selection fitting process. Measurement and application of the real-ear-to-coupler-difference (RECD) accomplishes this goal (Moodie, Seewald & Sinclair, 1994). Real-ear-coupler-differences are used to individualize the HL to SPL transform. This is important in a population whose ear canals and ear drum impedance generally are different from the adult averages that typically are used to conduct these transforms (Scollie, et al., 1998, Seewald & Scollie, 1999). In addition, the RECD is used to adjust the electroacoustic fitting so the final output in the real-ear will be correct for an individual child (Seewald et al., 1999). This use of the measurement is especially important when real-ear aided response measures are not possible.

b) Minimally, the fitting method employed to determine hearing instrument electroacoustic characteristics should be audibility based (i.e., the goal would be to provide audibility of an appropriate amplified long-term amplified speech spectrum). When nonlinear circuitry is considered, the prescriptive formula should take into account speech audibility at different input levels (e.g., NAL-NLI or DSL [i/o], Byrne, et al., 2001; Cornelisse, et al., 1995). That is, the primary goal is the audibility of speech regardless of input level or vocal effort.

c) Target values for gain and output are determined through the use of a prescriptive formula (evidence-based independent or evidence-based device-related) by using hearing sensitivity data and the RECD.

d) Although none of the threshold-based selection procedures are guaranteed to ensure that a child will not experience loudness discomfort or that output levels are safe, the use of a systematic objective approach that incorporates age-dependent variables into the computations is preferred. Frequency-specific loudness discomfort levels should be obtained when children are old enough to provide reliable responses (Gagné, Seewald, Zelisko & Hudson 1991a, 1991b).

e) The audiologist may consider the need to reduce gain recommended by a particular fitting strategy if binaural summation is not considered in the fitting strategy and the fitting is binaural. Currently, there are not data that clearly illustrate binaural summation experienced through hearing aids in the soundfield. Scollie et al (2000) reported no binaural summation as measured through preferred listening levels in children who were using hearing aids. In addition, the desired frequency/gain response and output limiting may need to be modified from the prescription if the hearing loss is primarily conductive or if there is a conductive component.

f) The electroacoustic parameters of the hearing instrument are pre-set so as to achieve the targeted response. Coupler measurement allows for pre-setting the hearing aids prior to fitting them to the child. Pre-setting in the pediatric population is especially important because the child may not provide reliable feedback for fine-tuning.

g) Further electroacoustic measurement after the desired output (gain) has been set should include verification of low distortion at varying inputs at user prescribed settings.

6. VERIFICATION

a) The electroacoustic performance of the instrument should be matched to the prescribed 2 cm3 coupler target values for gain and output limiting where the 2 cm3 coupler values have been derived using an individualized real ear to 2 cm3 coupler transform (e.g., the RECD).

b) Aided soundfield threshold measurements may be useful for the evaluation of audibility of soft sounds but they are not recommended and should not be used for verifying electroacoustic characteristics of hearing instruments in infants and children for several reasons:

1) Prolonged cooperation from the child is required
2) Frequency resolution is poor
3) Test-retest reliability is frequently poor (Seewald, Moodie, Sinclair & Cornelisse 1996)
4) Misleading information may be obtained in cases of severe to profound hearing loss, minimal or mild loss, or when non-linear signal processing, digital noise reduction, or automatic feedback reduction circuitry is used

c) Probe microphone measurements employing an insertion gain protocol are not the preferred procedure for verifying electroacoustic characteristics of hearing...
Instruments in infants and children for several reasons:
1) Targets are provided outside of any relevant context (i.e., threshold) and consequently are not directly audibility based
2) Targets assume an average adult REUG

f) Audibility is one of the main goals of verification. As hearing aid technology changes (processing various input signals in different ways), the clinician must select signals for this type of testing that ensure accurate electroacoustic verification. As hearing aid technology changes, the clinician must update his/her knowledge as to the appropriate signal to use for testing and may need to update his/her equipment with newly developed signals (Scollie & Seewald, 2001). All air conduction hearing aid technology can be measured electroacoustically in some appropriate manner.

e) If probe-microphone measures of real ear hearing aid performance are not possible, hearing aid performance can be predicted accurately in the real ear by applying age-appropriate average RECD values to the measured 2-cc coupler electroacoustic results (Seewald et al., 1999).

f) As audibility is one of the main goals of the pediatric hearing aid fitting, the Situational Hearing Aid Response Profile (SHARP, Stelmachowicz, Lewis, Kalberer, Creutz, 1994) may be used to verify predicted audibility in a variety of settings that cannot easily be measured in a clinical setting. Measured hearing aid characteristics (test chamber or probe-microphone data) are entered into this software program and the audibility for twelve different listening situations (e.g., cradle position, hip position, 1 meter, 4 meters, child’s own voice, etc.) is evaluated. Estimated performance displayed on a hearing aid manufacturer screen during programming without the direct measurement of a probe microphone is an estimate of performance based on a variety of estimations associated with the individual’s ear and hearing aid. These data cannot be relied on for verification purposes.

Note: In the various procedures described under Verification, a signal must be presented to the hearing aid whether it is being tested with a microphone in the test chamber or with a probe microphone in the real ear. The test signal should adequately represent the frequency, intensity, and temporal aspects of speech. Recent investigations have illustrated that various advanced signal processing interacts with the test signal and that the most accurate representation of the hearing aid’s response will be through the use of a speech-like signal or by turning off signal processing during test that attempts to reduce output that it considers noise (Scollie & Seewald, 2002; Scollie, Steinberg, Seewald, 2002).

7. HEARING INSTRUMENT ORIENTATION AND TRAINING

Orientation and training should include family members, caregivers, and the child. This information also must be communicated to the child’s educators through interactions with the educational audiologist, deaf and hard-of-hearing specialist, or other qualified personnel. Orientation and training should be discussed, demonstrated, and sent home in a written or video format. Orientation and training may take place over several appointments based on the family’s and child’s ability to perform tasks.

Orientation and training will include:
a) Care of the hearing aids, including cleaning and moisture concerns
b) Suggested wearing schedule and retention
c) Insertion
d) Removal
e) Overnight storage (including the mechanism for turning off the hearing aids)
f) Insertion and removal of the batteries
g) Battery life, storage, disposal, toxicity
h) Basic troubleshooting (batteries, feedback, plugged earmold and/or receiver)
i) Telephone coupling and use
j) Assistive device coupling and use
k) Moisture solutions (e.g., dehumidifying systems and covers)
l) Tools for maintenance and care (e.g., battery tester, listening stethoscope, earmold air blower)
m) Issues of retention/compliance/loss (including spare hearing aids and any loaner program)
n) Recommended follow-up appointments to monitor use and effectiveness

8. VALIDATION

a) Validation of aided auditory function is a demonstration of the benefits and limitations of aided hearing abilities and begins immediately after the fitting and verification of amplification. Validation is an ongoing process designed to ensure that the child is receiving optimal speech input from others and that his or her own speech is adequately perceived (Pediatric Working Group, 1996). In addition to ongoing monitoring of the amplification device, objective measures of aided performance in controlled clinical environments and in real world settings may be included in the validation process.

Functional assessment tools assist in the monitoring process by evaluating behaviors as they occur in real-world settings. These tools are typically questionnaires designed for administration to parents and teachers or assessments that can be conducted in the child’s school environment.

b) Aided speech perception measures

Aided speech perception tasks including, but not limited to, the Low-Verbal Early Speech Perception Task and the Early Speech Perception Task (Moog & Geers, 1990), Phonetically Balanced Kindergarten List (PBK, Haskin, 1949), Northwestern University’s Children’s Perception of Speech Test (NUCHIPS, Katz & Elliott, 1978), Pediatric Speech Intelligibility Test (PSI, Jerger, Lewis, Hawkins, & Jerger, 1980) may be used in the validation process.

c) Functional assessment tools

1) Tasks conducted in the classroom setting or questionnaires completed by educators such as the Functional Listening Evaluation (Johnson & Von Almen, 1997), the SIFTER (Anderson, 1989), the Pre-school SIFTER (Anderson & Matkin, 1996) may be used for functional assessment, and the Listening Inventory for Education (LIFE) questionnaire (Anderson & Smaldino, 1996).

2) Questionnaires completed by parents or caregivers such as the Children’s Home Inventory of Listening Difficulties (CHILD) (Anderson & Smaldino, 2000), the Family Expectation Worksheet (Palmer & Mormer, 1999), the Early Listening Function (ELF) (Anderson, 2002), The Meaningful
9. FOLLOW-UP AND REFERRAL

Parents and other family members or individuals who will assist in caring for the amplification system should receive orientation, training, and ongoing support and appropriate referral as needed from the audiologist. The audiologist is a key professional who can provide education or refer families to those who can educate them about hearing loss.

Fitting of personal amplification in an infant or young child is an ongoing process. Minimally, an audiologist should see the child every three months during the first two years of using amplification and every 4-6 months after that (The Pediatric Working Group, 1996). Follow-up appointments should include:

a) Behavioral audiometric evaluations
b) Current assessment of communication abilities, needs, and demands
c) Adjustment of the amplification system based on updated audiometric information and communication demands
d) Periodic electroacoustic evaluations
e) Listening checks
f) Earmold fit check
g) Periodic probe-microphone measurements (at a minimum, following replacement of earmolds)
h) Periodic functional measures to document development of auditory skills (see Section 8: Validation)
i) Long-term follow-up including academic progress (tools may include the Meadow-Kendall Social-Emotional Scales (Meadow-Orlans, 1983). On-going auditory habilitation should be provided as part of a team of professionals including, but not limited to, audiologists, early interventionists, deaf and hard-of-hearing specialists, speech-language pathologists, classroom teachers, pediatricians, or pediatric otologists with the primary focus to support families in the development of the communication abilities of their children.

The prudent audiologist will want to help the parent or guardian make sure that the hearing aids are covered for loss, damage, and repair. Coverage may be available through the hearing instrument company, a hearing aid insurance company, or a homeowner’s policy.

REFERENCES

PEDIATRIC AMPLIFICATION GUIDELINE


The XXVIIth International Congress of Audiology, invites you to submit abstracts for the free paper sessions. Abstracts may be submitted on any topic related to audiology or hearing science. Please visit the Congress web site at www.dawsongroup.net/isa for additional information.

The Congress web site will accept your registration, abstract and hotel reservation beginning January 1, 2004.

Deadline for abstracts: July 1, 2004.

Mailing address:

XXVIIth Congress
120 E. Vista Oeste Drive, Tucson, AZ 85704 USA
HOUSE EAR INSTITUTE AND USC PARTNER TO OFFER ONLINE HEARING COURSE

The House Ear Institute is offering a public access link to a new USC Ageworks™ online educational program on “Hearing and the Aging Ear,” part of an educational course series of the Ethel Percy Andrus Gerontology Center at the University of Southern California (USC). USC Ageworks™ produced both the public and professional versions of the “Hearing and the Aging Ear” module through the partnership support of the House Ear Institute. The online version provides the general public with an educational overview of the hearing process and common hearing problems and covers four important aspects of hearing: how we hear, hearing evaluation, hearing changes with aging and the psychological effects of hearing loss. The public can take advantage of the program’s animated illustrations and narrated presentations on hearing health topics, such as tinnitus and presbycusis (aging ear), for general information. The course is now available as a link from the House Ear Institute’s website at www.hei.org/ageworks/hearingcourse/. The direct link can be found at USC’s Ageworks’ website - www.ageworks.com/hearingcourse/.

AAC SPONSORS SPEAKERS FOR HIGH SCHOOL STUDENTS

Numerous audiology leaders spoke on behalf of the Audiology Awareness Campaign (AAC) at 27 “National Youth Leadership Forum on Medicine” conventions in 10 cities during 2003. More than 10,000 high school seniors from across the county attended these conventions. High school seniors nominated by teachers or community leaders were eligible to attend. The conventions provided an opportunity for high-achieving high school students to hear about various aspects of medicine. AAC’s “Listen-Up America: We Hear You” booklets were distributed to students along with earplugs, and lists of AuD programs. Program speakers included Paula Allison, David Citron, Steven Huart, Ken Henry, Cathy Kurth, Kathy Landau Goodman, Maria Lundquist, Joe Melcher, Carey Philliposian, Yvonne Sininger, Robert Sweetow, Nancy Vause, Dennis Van Vliet, Kady Williams, and Steven Wolinsky. For more information about the AAC, visit www.audiologyawareness.com.

SUCCESS WITH PENETRATING BRAINSTEM MICROELECTRODES

Success caps 15-year effort by scientists, engineers and physicians of the House Ear Institute in Los Angeles and the Huntington Medical Research Institutes in Pasadena. Physicians of the House Ear Clinic have successfully implanted the first two patients with a Penetrating Electrode Auditory Brainstem Implant (PABI), a prosthetic device that is currently in clinical trials. The PABI is based on cochlear implant technology but extends the utility to stimulating the hearing portions of the brain to restore some degree of hearing function to people deafened by bilateral tumors on their hearing and balance nerves (vestibular schwannomas). The PABI is a modified version of the existing Auditory Brainstem Implant (ABI) with the addition of an assembly of microelectrodes, designed to penetrate into the auditory portion of the brainstem (cochlear nucleus) and send sound signals to the brain.

The ABI, which was developed at the House Ear Institute (HEI) over two decades of research, was approved by the FDA in 2000 and has been implanted in more than 300 people worldwide. The new electrode array for the PABI was developed in close collaboration between research scientists and engineers at the House Ear Institute and Huntington Medical Research Institutes (HMRI) in the US and Cochlear Limited in Australia, with funding from the National Institutes of Health. For the past 12 years, these experts have developed and tested the PABI to ensure the safety of the device for clinical use. The penetrating electrodes, which are surgically implanted following removal of a tumor, were designed and manufactured to safely stimulate the neurons in the brainstem.

Like the ABI, the PABI is designed for patients suffering from Neurofibromatosis Type II (NF2), a hereditary disease that can cause profound hearing loss through the growth of bilateral tumors on the vestibular nerves. Because of the location of these tumors, their removal typically necessitates severing the auditory nerve. A cochlear implant cannot be used because the auditory nerve is not able to carry signals from the cochlea to the cochlear nucleus in the brainstem. Instead, the ABI or PABI applies a processed electrical signal directly to the auditory portion of the brainstem.

Recipients of the existing surface-electrode ABI do not generally receive the level of benefit afforded to cochlear implant recipients because the surface electrodes do not make selective contact with the different pitch regions of the cochlear nucleus. The new PABI is designed to provide pitch-selective stimulation by inserting penetrating microelectrodes directly into the different pitch regions of the auditory brainstem.

Cheryl Kreider Carey Earns CAE Designation

Cheryl Kreider Carey, Deputy Executive Director, Convention, Exposition and Education, for the American Academy of Audiology, has achieved the designation of Certified Association Executive. This designation is awarded by the American Society of Association Executives (ASAE). Prior to certification, applicants must meet certain eligibility criteria, demonstrate accomplishments in association management and successfully complete a comprehensive examination, which tests competence within the association management profession. The total number of association executives who have earned the prestigious CAE designation is just under 3,000. There are over 24,000 individual members of ASAE who are potentially eligible to sit for the CAE examination.
Barry Freeman (right) presents a beautifully framed copy of the Doctor of Audiology Oath to Laura Fleming Doyle and Academy President Brad Stach, on behalf of Nova Southeastern University. The framed document will be prominently placed in the Academy’s National Office in Reston, VA.

Carol Fraser Fisk, 57, Deputy Executive Director of the AG Bell Association for the Deaf and Hard of Hearing in Washington, DC, passed away from ovarian cancer on January 7, 2004. Fisk was hired as the first Executive Director of the American Academy of Audiology and was instrumental in helping the Academy develop a self-managed national office in McLean, VA. Fisk served the Academy from 1998 - 2000. Fisk was formerly a US Commissioner on Aging and Vice President of Public Policy for Volunteers of America.

Gunnar Liden, MD, passed away quietly on December 29 after a brief illness. He was put to rest on his 86th birthday in his home community of Sparsor, Sweden. Liden was retired from his position as otolaryngologist at the University of Goteborg, Sweden. Liden was known to audiologists as an early researcher and prolific author on the clinical utilization of immittance audiometry including tympanometry, acoustic reflexes and using middle ear measures as a screening procedure in the schools.

Tomas O. Davidson, 62, a retired audiologist, died suddenly at his home in Tallahassee, FL, Nov. 8, 2003. He earned his audiology degrees from the University of Tennessee where he taught audiology for 12 years. Davidson held positions at the University of Tennessee Hospital Speech and Hearing Clinic, the Shea Clinic in Memphis, and was a regional sales representative for several hearing aid companies during his career. He was a past-president of the Tennessee Speech and Hearing Association. Davidson was influential in passing the Tennessee licensure bill and served as advisor to the Tennessee Board of Hearing Aid Dispensers and the Tennessee Malpractice Review Board. He was a charter member and past-president of the Southern Audiological Society. He was an active member of ASHA, AAA and the Florida Academy of Audiology. Davidson was an avid golfer and sports fan, and possessed a sharp wit and sense of humor that will be missed by his family and friends. His wife, audiologist Vicki Wiman of Tallahassee, FL, survives him. Memorial donations to support students enrolled in the University of Tennessee Audiology program may be made via the Davidson Audiology Scholarship Endowment, UT Office of Development, 600 Andy Holt Tower, Knoxville, TN 37996.

AFA HONORS AUD STUDENTS

AuD students at Ball State University and Central Michigan University were honored by the Audiology Foundation of America at luncheon ceremonies held on September 24, 2003, and October 31, 2003, respectively. Winners of the 2003 Outstanding AuD Student Scholarships, Monica Burch and Trisha Ostermeier, received plaques from the AFA during the ceremonies. AFA Executive Director Susan Paarlberg presented third year AuD students at Ball State University with otoscopes. Students at Central Michigan University were presented with otoscopes by AFA Advisory Committee member Valenta Ward-Gravely.

The AFA was a proud sponsor of the first White Coat Ceremonies for AuD students at the University of Pittsburgh and Gallaudet University. On September 13, 2003, Craig Johnson represented the AFA at the White Coat Ceremony at Gallaudet University where he presented students with otoscopes, audiology symbol pins, as well as white coats. AFA Director Eric Hagberg participated in the ceremony at the University of Pittsburgh where he presented students with white coats, otoscopes and symbol pins. The AFA will continue its support of White Coat Ceremonies for AuD students in 2004. Interested AuD programs should contact the AFA. For more information visit the AFA’s website: www.AuDfound.org.
The American Academy of Audiology has now surpassed more than 9,000 members!! On December 31, 2003, Sandra Hepker of Hillsdale, MI, became the 9,000th member.

Academy membership is continually growing and the bigger we are, the stronger we are. Encourage your colleagues to join, and thanks for your support!

"Find An Audiologist" Website Feature to Bring More Patients to You!
The Academy is now offering a new member benefit on www.audiology.org to help you make your practice more visible to potential patients. As an Academy member, not only can you list multiple offices under the "Find an Audiologist" feature, but you can now list your website address as a direct link to your site.

There is an annual fee of $100 to list your website. Multiple office addresses are free. Please contact Sarah Sebastian at ssebastian@audiology.org or 703-226-1047 to have your website listed.

CO-AUTHORS CHOSEN TO PEN BOOK ON PERSONAL AND PROFESSIONAL FULFILLMENT
Kathy Foltner and Toni Gitles have been selected through a nationwide search to co-author two new books from Insight Publishing, a Tennessee-based publisher. Foltner and Gitles are joined by other experts who offer a variety of relevant, inspirational, and informational strategies designed to help people succeed in their personal and professional lives plus find contentment, peace, and happiness. Success Is A Decision Of The Mind and Happiness Is A Decision Of The Heart are full of real-life examples demonstrating how each of the authors has achieved success and happiness. In addition, each book offers ready-to-use insights on success and happiness for readers to implement in their own daily lives, careers and businesses.

CLASSIFIED ADS

CALIFORNIA
CLINICAL AUDIOLOGIST:
Department of Veterans Affairs Central California Health Care System, Fresno, CA has a full-time opening for an experienced/licensed Clinical Audiologist. Responsibilities include diagnostic testing of adults and fittings in a busy clinic. May include ABR in future. We offer competitive salaries and excellent benefits. Contact Cathy McHarry, Human Resources Mgmt Service at (559) 225-6100 x6339.

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RESEARCH SCIENTIST/ASSISTANT RESEARCH AUDIOLOGIST:
Widex Hearing Aid Company, committed to excellence in producing the world’s finest digital hearing instruments, is expanding its research operations in its Lisle, Illinois facility. As a result, we have a great opportunity for a Research Scientist with a PhD in Audiology, hearing science, or related field (clinical experience not required); in addition to an Assistant Research Audiologist at a Masters Degree level. These positions would entail research and development of amplification systems; assisting in the design, data collection and documentation of research studies; and developing and refining rehabilitation and outcome measures protocols.

Salary is competitive with degree and experience.

All responses will be viewed with the strictest of confidence. Kindly forward all resumes cover letters with salary requirements to: Widex Office of Research in Clinical Amplification, Attn: Francis Kuk, PhD, 2300 Cabot Drive, Suite 415, Lisle, IL 60532

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For information about our employment website, HearCareers, visit www.audiology.org/hearcareers. For information or to place a classified ad in Audiology Today, please contact Patsy Meredith at 720-848-2828 or Fax 720-848-2811.
AMERICAN ACADEMY OF AUDIOLOGY MEMBERSHIP BENEFITS

ARE YOU TAKING ADVANTAGE OR YOUR MEMBERSHIP BENEFITS?

The American Academy of Audiology offers its members several benefits of membership. You may not even be aware of some of the advantages that come with being an Academy member. Not only are we members part of the world’s largest professional organization of, by and for audiologists, but they also benefit from discounts in a number of programs. Read on to find out more about the benefits of membership with the Academy.

PUBLICATIONS:
- Audiology Today
- Journal of the American Academy of Audiology

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COMPENSATION & BENEFITS SURVEY:
The American Academy of Audiology conducted its third annual Compensation and Benefits Survey in the Fall of 2002. A full report of the survey with detailed information is available for Academy members online at www.audiology.org/hearcareers.

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HEARCAREERS:
Whether you’re seeking a job or filling a position, the American Academy of Audiology’s HearCareers site has everything you need to achieve your hearing career goals. This online employment service allows job seekers to post their resume and view job postings for free. HearCareers offers discounted rates to our members who post positions. Go to www.audiology.org/hearcareers to make your next career connection with HearCareers.

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This dual-purpose card can be used as a GlobalPhone domestic or international calling card. It is also your permanent membership card for easy reference to your membership number. U.S. rates are 5.9 cents per minute with no surcharges. To activate your calling card, call 1-800-866-895-5714 or go to www.audiology.org/callingcard.

PROFESSIONAL LIABILITY INSURANCE:
The Academy has endorsed the professional liability insurance program offered through Healthcare Providers Service Organization (HPPO). We selected this program because of the plan’s many benefits, affordable rates, and their commitment to customer service. For more information, call 1-800-982-9491 or visit their web site at www.hppo.com.

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For more information about these benefits, contact Brittany Voigt, Member Benefits Coordinator, at 703-790-8466 x1044 or bvoigt@audiology.org.