Augmentative Communication News

December 2005

Volume 17
Number 4

Upfront

This purpose of this issue is to hoist a flag that says, "Be on the lookout for vision problems." Functional vision is an urgent consideration in serving the needs of people who rely on AAC because (1) so many people who can benefit from AAC have vision problems and (2) good vision is assumed in most AAC strategies and approaches.

Twelve years ago, I wrote an issue of this newsletter about vision and AAC, which is now posted on our website (www.augcominc.com). Surprisingly, much of it is not yet out of date.* Many AAC practitioners have told me that they seem to be working with more individuals who have visual impairments. It is time to take a fresh look at existing (and missing) resources.

An online search of all the back issues of the *Augmentative and Alternative Communication* (*AAC*) *Journal*[1] yielded few articles that even mention "vision" or "visual impairment." I was unable to locate any articles that *either* address the impact of vision problems on the design and development of AAC technologies *or* the application of specific types of AAC treatment approaches with people who have impaired vision in other peer-reviewed journals. [I'm not saying they are not there, but I didn't find them.] I did read two great AAC-related book chapters that address issues related to vision and the use of AAC.[2,3]

My search also led to an article that suggests AAC practitioners may not feel adequately prepared to deal with clients who have vision problems. In the December 2005 issue of *AAC,* a survey of speech-language therapists in New Zealand revealed that 78 percent of those working in AAC reported they did not feel competent working with individuals who had visual and/or hearing impairments.[4]

Clinical News highlights the importance of considering vision in all AAC assessments. The section also underscores the need to engage

Continued on page 2

* For a free print copy, send an email request to sarahblack@aol.com.

inside this issue

Clinical News

Vision and AAC

A surprisingly high percentage of individuals who rely on AAC techniques, strategies and technologies seem to have documented visual impairments. For example, in a recent outcomes study, Mary Hunt-Berg reported that 44% (7 of 16) of the children and youth who had previously attended The Bridge School in California (a school for individuals with severe speech and motor impairments who rely on AAC) had visual impairments.[5] In her ongoing, prospective study, an estimated 70% (16 of 23) of the children recently enrolled in the school have problems with their vision (M. Hunt-Berg, personal communication, December 2005).

In a study based on a chart review of 38 children who had received AAC services from two University of Wisconsin-Madison clinics, Katie Hustad reported that almost 60% of the children had documented visual problems.[6] She also noted in her ongoing prospective study of 43 children with cerebral palsy that almost 75% of the children have one or more vision-related diagnoses, ranging from cortical blindness to lazy eye. Hustad explains,

> Of course, this doesn't always translate to "blindness" or even functional vision problems, but it certainly raises a red flag to think about vision and to bring in a vision specialist to consult on the AAC assessment. (K. Hustad, personal communication, November 2005)

Continued on page 2

Clinical News, Continued from page 1

The disability-related literature reports visual problems in approximately 48% to 75% of children and adults with developmental delays and cerebral palsy[7] and 75% to 90% of children with severe/profound cognitive disabilities.[8] Many people with acquired disabilities, such as aphasia, locked-in syndrome, traumatic brain injuries and multiple sclerosis have a high incidence of visual impairment.[9] Finally, most adults over the age of forty need glasses to read, and a goodly number of older adults develop cataracts or other conditions that interfere with vision. These factoids suggest that a significant number of individuals who currently use, or will need, AAC may also have conditions affecting their vision that could interfere with the success of AAC interventions.

Problems with vision

The visual system is very complex. Seeing requires the reception of light through the eye, the transmission of electrical impulses along the optic nerve and the imaging and interpretation of these impulses in the visual cortex of the brain.[10] Exactly what (and how) someone sees (or doesn't see) is not easily observable, particularly when the individual has concomitant motor, cognitive, speech and/or language difficulties. To further complicate matters, some conditions are greatly affected by lighting, and some conditions cause vision to fluctuate. Vision is also affected by various medications that are frequently used by individuals who rely on AAC (*e.g.*, muscle relaxants, seizure meds, antipsychotics, *etc*.) Thus, figuring out how individuals use their vision to function in the world requires the active involvement of professionals who have specialized knowledge of the intricate and interrelated anatomic and physiologic structures involved in seeing. These professionals can use sophisticated instrumentation and observations to diagnose and assess visual problems. They can also bring to bear their years of clinical experience and education when making recommendations. Ophthalmologists, optometrists and low-vision specialists are among those who diagnose, assess and treat individuals who are visually impaired. See Table I for a brief description of the range of professionals with expertise in vision who are able to serve as important resources to AAC practitioners and caregivers.

> *"It certainly raises a red flag to think about vision and to bring in a vision specialist to consult on the AAC assessment."*
> *Katie Hustad, 2005.*

Vision and communication

Vision serves a crucial and unique function in our daily lives and is arguably our most important channel for learning, getting around, gathering information and interacting with others. In addition, vision plays a key role in child development, so that the developmental course of severely visually impaired children (with or without additional disabilities) is quite complicated and variable.[11,12]

When vision problems occur later in life, after language and communication skills are well established, communication is still affected. For example, people who are visually impaired often find themselves further disabled by mainstream technologies that are highly dependent upon graphics.[13] In addition, during face-to-face communication, people with visual impairments may miss the nuances of meaning expressed through facial expressions, body language and gestures.

Upfront, Continued from page 1

professionals who specialize in vision in the design and implementation of effective AAC interventions. ***On The Web*** points to an interesting website that illustrates the impact of different types of visual impairments on how someone sees the world. In ***Case Example #1 and #2,*** two individuals with complex communication needs and visual impairment are introduced. Their vision assessments made a significant difference in how interventions to enhance communication were planned and are being carried out. Finally, the ***AAC-RERC*** section highlights the 2005 and 2006 webcast series.

If you registered for ASHA CEUs, your quiz and instructions should arrive with this issue. If you do not receive a CEU packet and signed up, please call (831) 649-3050 or email sarahblack@aol.com **immediately**. The completed test must be postmarked (or emailed) **on or before January 15, 2006** to receive CEUs for 2005.

Many thanks to those who helped me with this issue. They are listed on page 8. Special thanks to Terry R. Welch who lobbied hard for this topic. Happy holidays to you, your family and friends and best wishes for 2006.

Sarah

Sarah W. Blackstone, Ph.D. CCC-SP

Table I. Description of professionals who treat visual imparments
with Terry R. Welch, 2005

Professional	Description	Role	Training
Ophthalmologist, MD	Physician who specializes in the medical and surgical care of eyes and visual system and in the prevention of eye disease and injury.	Eye exams, diagnosis and medical treatment of eye disorders and diseases, prescriptions for eyeglasses, surgery and management of eye problems caused by systemic illnesses.	4 years medical school: 1 year internship; 3 years residency. May also do fellowship to specialize in corneal, retinal, glaucoma, pediatrics, plastic surgery.
Optometrist, O.D.	Licensed nonmedical eye specialist. May work with an ophthalmologist.	Routine eye exams, diagnosis of vision problems and eye disease. Prescribes eyeglasses, contact lenses, and low vision aids. Treats eye diseases.	4 years optometry school. Residency to specialize in contact lenses, family practice, pediatrics, geriatrics, hospital-based, vision therapy.
Orientation and Mobility (O&M) Specialist/Instructor	Professionals who teach travel skills to adults and children who are visually impaired.	Techniques for using non-visual senses to orient to one's environmnet and to move safely from one place to another.	Specialty area in rehabilitation. Training at bachelor's or master's degree level. Supervised internship for certification.*
Low Vision Specialist	Optometrist or ophthalmologist with special training in low vision rehabilitation.	Comprehensive examination of individual's usable vision for functions of day-to-day life. Prescribes low vision devices, Recommends adaptations and aids for daily living activities.	Optometrist or ophthalmologist subspecialty. Study and clinical training in low vision.
Certified Low Vision Therapist (e.g., OTs, RNs)	Education/rehabilitation professionals with specialty training in low vision.	Functional assessment of visual abilities. Instruction in optimal use of vision and visual aids in everyday tasks.	Specialized study and training beyond bachelor's or master's degree.*
Teacher of students with Visually Impairments (TVI)	Teacher who specializes in education of children with visual impairments.	Instruction in compensatory academic and related skills (e.g., reading & writing Braille) and in assistive technology. Works in mainstream, residential and special school environments. Often itinerant.	Specialty area in education at bachelor's or master's degree level.
Vision Rehabilitation Therapist	Professional with specialty training in vision impairments.	Provides instruction for adults in compensatory skills and assistive technology. Emphasis on vocational and independent living skills. Works in center-based or itinerant settings.	Specialized study and training beyond bachelor's or master's degree level.*
Occupational Therapist (OT)	Licensed professional who specializes in improving function and independence of individuals (including those with visual impairments) in activities of daily living.	Assesses and treats impact of visual impairment on function. Positions to support efficient use of vision. Recommends and constructs equipment. Works to integrate sensory systems, visual-motor coordination skills and tactile skills.	Degree (bachelor, master and Ph.D.). Supervised practicuum. Licensure. OT assistant requires an associate's degree.

*In the U.S., it's the Academy for Certification of Vision Rehabilitation and Education Professionals.

AAC and visual impairments

Most AAC approaches rely heavily on the use of vision (*e.g.*, graphic symbol sets, communication boards and books, manual signs, computer displays, gestures and body language). Thus a necessary, early first-step in the AAC assessment process is to consider each individual's visual capabilities. Vision will contribute to, or detract from, the success of AAC interventions.

While many vision problems are correctable with glasses, contact lenses, surgery, medication or simple accommodations, some are not remediable and require special technologies or additional adaptations and strategies. AAC practitioners need to work closely with low vision professionals in optimizing vision to support communication, learning and participation for clients who rely on AAC and have visual impairments.

Step One

Understanding the conditions that can interfere with vision is an important first step for AAC professionals. The range of visual impairments may be caused by diseases or problems of the eye, the visual pathway or the brain. Terms such as visual impairment, blindness, legal blindness and low vision are used to describe different degrees of visual impairment.

§ **Visual impairment** - Any degree of vision loss that cannot be corrected through eyeglasses or contact lenses and that affects the ability to perform everyday activities.[14]

§ **Blindness** - Severe visual impairment. Individual has no vision or can only perceive light.[14] [AAC teams need to consider auditory/tactile ways to represent language.]

§ **Legal blindness** - Visual acuity of 20/200 or less in the better eye (with corrective lenses) or a visual field (peripheral vision) of less than 20 degrees. Frequently used to determine eligibility for governmental or other services.[14] [AAC teams need to plan individualized accommodations.]

§ **Low vision** - Severe visual impairment, not correctable by regular eyeglasses or contact lenses.[14] Individual is able to use vision, at least some of the time for some everyday activities, often including reading print.[1r] [AAC teams need to plan individualized accommodations.]

There are many types of visual impairments that affect the eye and visual pathways. In neurological impairments, such as cortical or cerebral visual impairment (CVI) or stroke, the eye and visual pathways may be normal, but the brain cannot properly process the information it receives.[15]

Step Two

A second step for AAC professionals is to recognize when problems exist and, to the extent possible, try to understand their impact on function. This requires the involvement of vision professionals, as listed in Table I, who can provide state-of-the-art vision assessments and make recommendations.

Continued on page 4

Clinical News, Continued from page 3

Vision screenings. Often provided to preschool and school-age children at the time of entry into an educational program and at intervals throughout their school years. Some vocational programs also may conduct vision screenings. Screenings often check for distance vision only and may not identify problems with near vision (required for someone to benefit from the use of graphic symbols, speech generating devices, communication boards and books). Many children and adults with complex communication needs are unable to participate in vision screenings and deemed "untestable."

Formal clinical assessment. Individuals who use AAC and have vision problems require a comprehensive assessment performed by an optometrist or an ophthalmologist. I asked H. Lee Stewart, M.D., a research ophthalmologist at The Smith-Kettlewell Eye Research Institute in San Francisco, how to locate an appropriate doctor. He replied, "The path to the right person can be varied. A good place to start, however, is to ask for a referral to a university-based, teaching institution." He also recommended against looking in the yellow pages, noting that most ophthalmologists and optometrists do not have experience working with individuals who have multiple handicaps.

Stewart also pointed out that, although sophisticated diagnostic techniques are available to provide objective information about the visual system, determining how vision influences communication and the AAC decision-making process in individuals with concomitant motor, cognitive and behavioral problems is very difficult and time consuming. (H. L. Stewart, personal communication, December 2005).

Low vision evaluations and functional vision assessments. Trained vision specialists conduct low vision evaluations and functional vision assessments. A low vision evaluation is a comprehensive and specialized clinical examination of visual abilities and needs. A functional vision assessment aims to describe how individuals currently use their vision in daily environments and routines.

Table II. Ten questions for famlies
with Tracy Kovach & Pat Kenyon, 2005.

1	Do you notice any inconsistencies in what _____ sees?
2	Does _____ look directly at objects? If you hold an object to the side will _____ reach for it?
3	Can _____ identify pictures? Does it make a difference where you put them?
4	Does _____ seem to see familiar objects, but not see unfamiliar objects?
5	During play, do you notice preferences for objects that relate to their color, size or sound?
6	Do you often ask ____ to "look at me" when you communcate? Does this seem to be a problem?
7	Do you notice ____ tilting his/her head or holding his/her head in certain postures?
8	Do you observe _____ gazing at lights? computer displays? the TV?
9	Is _____ able to shift his/her gaze to follow objects when they are moved horizontally or vertically?
10	Are there difficulties seeing important items or things of interest in a picture or scene? (*i.e.*, figure/ground problems).

Learning media assessments. In some states in the U.S., teachers of students with visual impairments are required to conduct an assessment to determine the need for visual, auditory and/or tactile media.

AAC practitioners can help vision professionals by collecting information in advance.[2,3] They should carefully review an individual's medical history (*e.g.*, hypoxia, diabetes, cerebral palsy) and be alert to any associated visual conditions.

In addition, clinicians can ask caregivers questions about vision during the AAC assessment process. [See Table II.] If clinicians or caregivers suspect any difficulties with vision, a referral should be made.

Step Three

If a visual impairment is identified, AAC professionals can work with vision specialists to (1) discuss the visual requirements for a particular AAC option, such as a speech generating device (SGD), aided language stimulation, *etc*., (2) consider whether the individual has the requisite visual skills after, for example, receiving new lenses and (3) determine what environmental or instructional adaptations need to be in place to support the individual's success.

When an individual has no (or very limited) functional vision, AAC practitioners will introduce tactile or textured symbols, tactile signs, Braille and/or auditory scanning approaches (*e.g.*, partner-assisted scanning, an SGD with auditory scanning features, *etc*.). When an individual's visual acuity is impaired or when vision fluctuates (as in CVI), however, it can be challenging to figure out appropriate accommodations across contexts and commu-

Table III. Visual conditions and implications for AAC treatment

Example Conditions	Implications for AAC treatment
Person is nearsighted (myopia)	Requires use of corrective lenses for distance. May require modification of materials re: size, color, etc.
Person is farsighted (hyperopia/presbyopia)	Requires glasses to use AAC displays. Need to consider size, color and arrangmentt of graphic symbols. Illumination of displays can help.
Person has astigmatism	Both near and far objects appear blurry. Requires glasses to use AAC display.
Person has ocular motor problems: Strabismus or nystagmus	May affect ability to scan, fixate, locate and track objects. May interfere with interaction and use of AAC approaches. May need to adjust head and body positions to compensate. Location/orientation of display, configuration on a symbol array and placement of items on the display may be critical.
Person has visual field difficulties	Person may need to be constantly shifting positions to see. Affects postioning of person and placement and arrangement of symbols, devices, and materials. Note: Peripheral vision is less clear than central vision.
Person has light sensitivity	May need to use non-reflective surfaces to decrease glare. Retinal problems and CVI may require low light conditions. Myopia/presbyopia may require increased illumination.
Person is color blind	Be careful when choosing color codes. Provide contrast when using color. Red and green most often confused.

On the Web

What does the world look like?

A picture is worth a thousand words. This site shows how individuals with various visual impairments would view the same street corner. Example conditions include macular degeneration, cataracts and a visual field cut. http://www.lighthouse.org/about/low_vision_defined_page2.htm

nication partners. Table III illustrates some visual conditions that can affect AAC decision making. In short, the visual status of individuals who rely on AAC will influence clinical decisions in a number of areas: (1) whether to recommend an SGD and which one; (2) what symbols to use to represent language; (3) the size and color of symbols; (4) the number and arrangement of symbols on a display; (5) how the person should be positioned; (6) how materials and equipment are positioned; (7) how partners should be positioned; (8) the lighting and (9) more. It is also important for AAC teams to provide instructions to others, *e.g.*, when glasses are needed, where and how to provide communication equipment and materials, when and how equipment should be used and so on.

Summary

Many people who rely on AAC have visual impairments. AAC practitioners need to be aware of the types of vision problems associated with various diagnoses and should routinely consider how conditions affecting vision can impact the success of AAC interventions. This article points out the complexity of the visual system and encourages AAC practitioners to form alliances with professionals who specialize in vision. In reality, the necessary resources may not always be available; however, caregivers and AAC professionals who know what to watch for, when to refer and how to make some basic accommodations can make a huge difference in supporting the communication efforts of people with visual impairments.

Case Example #1

Jacob: Age 17

Visual impairments are generally identified in early childhood, but when someone has severe and multiple disabilities and limited support in the early years, visual problems may occasionally be overlooked.

Jacob is a 17-year-old boy who is residing in a group home for youth with severe disabilities. He has a history of significant developmental delays, mild cerebral palsy and severe dysarthria. Jacob is enrolled in a new high school in a special day classroom. The special education staff reported he is nonspeaking and had significant cognitive limitations. They referred him for an AAC assessment.

Although Jacob is ambulatory, his gait is unsteady. He enjoys being around people although his communication skills are limited. Expressively, he relies on gestures (*e.g.*, reach, take, push away), body posture, facial expressions and eye gaze to communicate. Receptively, he follows one-step commands (*sit, stand, give, come*) and understands familiar routines. During the speech-language pathologist's assessment, he was able to match two-inch colored picture symbols and identifed a few symbols from a field of two with 50% accuracy (chance level). Staff noted he was more likely make the correct choice when presented with objects than with pictures or symbols.

His teacher had difficulty finding things to interest him and requested an OT assessment. Jacob uses very few objects appropriately and his preferred activity is to flip Tupperware. His favorite class is Afro-Haitian dance.

No visual impairment was noted in his records; however, the speech-language pathologist said he appeared to "enjoy auditory input, such as music and particular voices." Teachers and aides reported that Jacob seems to "see" out of the corner of his eyes and rarely looks directly at people or objects. He also does not track objects well, although he is able to catch a ball and will play catch for up to 20 minutes. His one-on-one aide noted that he is fearful when going down the stairs.

Because of observed behaviors, the AAC team felt Jacob might have a visual field defect, oculomotor problems or perhaps cortical visual impairment (CVI). They recommended that he receive a vision assessment at the nearby university vision clinic and also referred him to the visual impairment (VI) specialist at the high school, who helped generate some questions.

(1) Does Jacob have a visual impairment? Can his vision be improved with lenses or other devices? (2) Does he lack central vision? If so, what might be done to help him compensate and feel safe? (3) How far is he able to see? (4) If objects or picture symbols are used to represent language, what size should they be? How should they be presented? (5) What's the best viewing

Continued on page 6

Case Example #1 Cont. from page 5

distance/position for him? (6) Should he have any activity restrictions? (7) Is his vision stable or likely to deteriorate? (8) How often should he have his vision evaluated? (9) Are there other assessments that should be sought?

Results. The examination by the ophthalmologist at the vision clinic showed no problems with the structures of his eyes. Thus, glasses would not help Jacob. He had a birth history that included mild hypoxia; and the doctor felt his behaviors were consistent with cortical visual impairment (CVI). She suggested that the school staff could better support his communication if they understood that his vision probably fluctuates from day to day and even hour to hour. Also, he is likely to use peripheral vision more effectively than central vision, which may be why he doesn't look directly at people or objects. She said that people with CVI often are better able to see when either they are moving or when objects are moving. This could explain why Jacob can play catch. Also, in CVI, depth perception may be problematic, and figure-ground distinctions may be difficult. This may explain his fear of going down the stairs.

Recommendations. Given Jacob's severe cognitive limitations, the vision clinic staff suggested trying to use familiar, colorful objects to provide communication choices and to experiment with how they are placed and presented. They also recommended simplifying visual information (*i.e.*, avoid visual crowding) and reducing the amount of competing sensory information during interactions with Jacob. Finally, they recommended that a teacher of students with visual impairments (TVI) and an orientation and mobility instructor be added to his IEP. These professionals can support the development of a functional communication program, help Jacob learn and teach him how to move safely in his environment.

Case Example #2

Rebecca: Age 7

Figuring out why someone doesn't use graphic symbols is not easy. Reasons may relate to the cognitive/linguistic abilities of the individual, personal preferences, the complexity of the symbols, how symbols are arranged, opinions of caregivers, *etc*. One thing to find out early is whether the individual can clearly see the symbols and discriminate one from the other.

Rebecca is a friendly seven-year-old girl with Down syndrome. She attends her neighborhood school and is included in a first grade classroom, with resource support. Her communication skills are limited by a severe speech-motor impairment. Her receptive language skills approximate a four-to-five-year level. She relies on gestures, a few manual signs and her impaired speech to interact with teachers and classmates at school. While she has low-tech communication boards with two-by-two inch symbols (often activity-based) and a simple, nine message digitized speech output device, her kindergarten teacher reported that she was not particularly motivated to use these tools and she was unable to increase the number of symbols on a display. Her IEP team requested that the speech-language pathologist reassess her use of symbols and develop a communication system that would enable her to generate language.

Rebecca had recently passed a school vision screening (a chart with figures—house, apple, circle, & square), which indicated she had 20/20 vision. However, her classroom teacher had observed behaviors that led her to question Rebecca's vision:

Rebecca seemed to recognize familiar people even when they were a considerable distance away from her (evident by her smile/vocalizations). Also, she watched activities throughout the room.

She correctly pointed to named objects and pictures in the classroom, but didn't always identify pictures in books when a classroom aide sat next to her to read.

When someone placed a book or her digitized speech device or symbol display in front of her, she would often push back against her chair and pull her head back—seemingly trying to avoid these items.

She could grasp objects, but when she did, she often held them away from her, rather than up close.

The teacher consulted with the teacher of students with visual impairments (TVI) who suggested that Rebecca be referred to a local optometrist who was providing services to other children with multiple disabilities in the school district. She noted that children with Down syndrome often have refractive errors.

Results. The optometrist confirmed that Rebecca was far-sighted and prescribed glasses for her to use for close work. He felt that Rebecca's limited interest in symbols, boards and books was, at least in part, a result of her limited vision. Also, he thought that with glasses, we could use smaller symbols and put more on a display.

The educational team is currently helping Rebecca get accustomed to wearing her new glasses. They added a phrase on her device ("I need my glasses, please."). She wears glasses for seat work and communication. She is now recognizing and using 1 x 1 inch symbols.

AAC-RERC

SPREAD THE WORD

The AAC-RERC hosted a series of four webcasts during 2005 and will be continuing the series in 2006. [Go to www.aac-rerc.com]. These webcasts offer students, families and professionals easy access to up-to-date information about current topics of interest in AAC. They also enable AAC-RERC partners to disseminate information to multiple stakeholder groups about the exciting results of their ongoing research and development projects. Four webcasts are currently available.

1. Supporting successful transitions for individuals who use AAC. *David McNaughton, Pennsylvania State University.* Provides information on major barriers and important supports to successful transitions for individuals who use AAC. Dr. McNaughton uses case examples of individuals who rely on AAC to illustrate transition strategies that promote positive outcomes. He identifies major barriers to successful transitions, discusses important supports to successful transitions and describes positive outcomes for individuals who use AAC.

2. AAC interventions to maximize language development for young children. *Janice Light, Pennsylvania State University*. Early AAC intervention is essential to maximize outcomes. This webcast reports on the results of a series of research projects that demonstrate that with early access to appropriate AAC technologies and services, young children with significant communication disabilities can build the language and communication skills that they require to achieve their full potential. Dr. Light describes effective designs for AAC systems to meet the needs and skills of young children (ages 0-3). She also illustrates effective techniques for implementing low- and high-tech AAC strategies with young children with significant communication disabilities and their families. Case examples illustrate the effects of described interventions on language and communication development and demonstrate evidence-based practice.

3. AAC and aphasia: A review of a visual scenes display project. *David R. Beukelman, Karen Hux, Kristy Weissling, Aimee Dietz, Miechelle McKelvey, University of Nebraska-Lincoln and The Madonna Rehabilitation Center.* This webcast discusses research and development activities that are associated with the Visual Scenes Display (VSD) project underway at the University of Nebraska. Presenters demonstrate the VSD interface, illustrate strategies for capturing and entering content for individuals with aphasia who rely on AAC, give examples of VSD setups for specific individuals and report intervention outcomes. See previous *ACN* issue on this topic (volume 16 #2, August 2004).

4. An overview of the health-based funding programs that cover SGDs. *Lewis Golinker, Esq. Assistive Technology Law Center.* An AAC funding advocate discusses key concepts and principles that support today's funding coverage of speech generating devices (SGDs). The webcast covers the role of the speech-language pathologist in recommending SGDs and suggests key vocabulary speech-language pathologists can use when requesting SGDs from third-party payers. The attorney also explains several types of insurance coverage for SGDs and shares resources, such as web pages, with additional information for each program discussed.

Coming attractions

In 2006, AAC-RERC partners will be offering additional webcasts. Candidates are:

Michael B. Williams will present a lecture based on the one he gave in San Diego at the American Speech-Language-Communication Association, *How Far We've Come; How Far We've Got to Go: Tales From the AAC trenches*. Michael received the 2005 Prenke Lecture Award in San Diego and developed these ideas in honor of Ed Prentke, the co-founder of the Prentke Romich Company.

Janice Light will present the results of a literacy project at Pennsylvania State University with young preschool and kindergarten children who rely on AAC and are now reading and writing.

Howard Shane will share his ongoing work in the area of autism and discuss the use of electronic media and intelligent agents.

Jeff Higginbotham and Kathy Yorkston will present on the topic of evidence-based practice.

Sarah Blackstone will talk about the use of a social networks framework in carrying out AAC assessments and interventions.

For more information, and to see all available webcasts, go to www.aac-rerc.com.

AAC-RERC
SPREAD THE WORD

The AAC-RERC section is partially funded by the National Institute on Disability and Rehabilitation Research (NIDRR) under Grant #H133E030018. The opinions herein are those of the grantee and do not necessarily reflect those of the U.S. Department of Education.

References

[1] www.tandf.co.uk/journals/online/0743-4618.asp. If you subscribe to *Augmentative & Alternative Communication*, you can search all volumes and download any article (Note: You need to do a brief sign-up first.)

[2] Utley, B. (2002). Visual assessment: Considerations for the design of AAC systems. In Reichle, J., Beukelman, D.R. & Light, J. C. (Eds.). *Exemplary practices for beginning communicators*. Baltimore, MD: Paul H. Brookes. 353-394.

[3] Kovach, T. & Bothwell Kenyon, P. Visual issues and access to AAC. (2003). In Light, J. C., Beukelman, D.R. & Reichle, J., (Eds.). *Communicative competence for individuals who use AAC: From research to effective practice*. Baltimore, MD: Paul H. Brookes. 277-319.

[4] Sutherland, D.E., Gillon. G.G., Yoder, D.E. (2005). AAC use and service provision: A survey of New Zealand speech-language therapists. *Augmentative & Alternative Communication (AAC). 21*:4, 295-307.

[5] Hunt-Berg, M. (2005). The Bridge School: Educational Inclusion Outcomes over 15 Years, *AAC, 21*, 116-131.

[6] Hustad, K.D., Berg, A.K., Bauer, D., Keppner, K., Schanz, A., Gamradt, J. AAC interventions for toddlers and preschoolers: Who, what, when, why. Paper presented at the American Speech-Language Hearing Association, November, 2005.

[7] Miller, M.J., Menacker, S.J. & Batshaw, M.L. (2002). Vision: Our window to the world. In M.L. Batshaw (Ed.). *Children with disabilities* (5th ed.). Baltimore, MD: Paul H. Brookes. 165-192.

[8] Cress, P., Spellman, C., DeBriere, T., Sizemore, A., Noretham, J. & Johnson, J. (1981). Vision screening for persons with severe handicaps. *Journal of the Association for Persons with Severe Handicaps. 6*(3): 41-50.

[9] Beukelman, D.R. & Mirenda, P. (2005). *Augmentative and Alternative Communication: Supporting children and adults with complex communication needs* (3rd ed.). Baltimore, MD: Paul H. Brookes. 499, 465, 528, 450.

[10] Hoon, Jr., A.H. (1996). Visual impairments in children. In A. J. Capute & P. J. Accardo (Eds.). *Developmental disabilities in infancy and childhood. Volume II: The spectrum of developmental disabilities* (2nd ed.). Baltimore, MD: Paul H. Brookes, 461-478.

[11] McConachie, H. R. & Moore, V. (1994). Early expressive language of severely visually impaired children. *Developmental Medicine and Child Neurology. 36*, 230–240.

[12] Hyvärinen L, & Foster S. (2005). Ophthalmological Disorders. In Rosenstock L., Cullen, M.R., Brodkin, C.A., Redlich, C.A. (Eds.). *Textbook of Clinical Occupational and Environmental Medicine*, Philadelphia, PA: Elsevier. 419-425.

[13] Petty, L. High Technology for Aging Vision. Presented at the Technology for the Aging Conference, 2001. http://www.utoronto.ca/atrc/rd/slideshows/aging_tech.html. Accessed December 8, 2005.

[14] American Foundation for the Blind. Glossary of Common Terms. http://www.afb.org/dirglossary.asp. Accessed December 8, 2005.

[15] American Foundation for the Blind. Glossary of Eye Conditions. http://www.afb.org/Section.asp?DocumentID= 2139#A. Accessed December 8, 2005.

Resources

Deborah Gilden, Ph.D., The Smith-Kettlewell Eye Research Institute, 2318 Fillmore St., San Francisco, CA, 94115. (415) 345-2000. debby@ski.org

Patricia Kenyon MA, OTR, The Children's Hospital. 1056 E. 19th Ave., Denver, CO 80218. (303) 861-6633. kenyon.patricia@tchden.org

Tracy Kovach, Ph.D., The Children's Hospital, 1056 E. 19th Ave., Box #B030, Denver, CO 80218. (303) 861-6024. kovach.tracy@tchden.org

H. Lee Stewart, M.D., The Smith-Kettlewell Eye Research Institute, 2318 Fillmore St., San Francisco, CA, 94115. (415) 345-2000. artwest@msn.com

Therese Rafalowski Welch, Ph.D., Center for Excellence in Augmented Communication (CEAC), Dept. of Comm. Disorders & Sciences, University at Buffalo, Buffalo, NY 14214. (716) 829-2797 x633. trwelch@buffalo.edu

Thanks also to Christine Kent, OTR, Low Vision Specialist, California Pacific Medical Center.

Some useful websites

www.visionconnection.org. Founded by Lighthouse International, the Vision Connection has pages on (1) your vision, (2) prevention, (3) technology, (4) vision rehabilitation, (5) research, (6) children's vision, (7) ask the expert and (8) for professionals. Accessed December 16, 2005.

www.lea-test.fi/leaweb/index.html. Lea Hyvärinen is a Finnish pediatric ophthalmologist, who is interested in infants, toddlers, and children with vision problems. Her website is available in several languages and has interesting resources, slides, tests, *etc*. Accessed December 8, 2005.

Approved Continuing Education Provider
American Speech-Language-Hearing Association

Augmentative Communication News is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech-language pathology. This program is offered for 1.0 CEUs; intermediate level; professional). ASHA CE Provider approval does not imply endorsement of course content, specific products, or clinical procedures.

Bent by Mick Joyce

Mick Joyce, a longtime friend and colleague, is a valuable contributor of the AAC consumer's perspective. His new 53 page book of powerful poetry, *Bent,* is now available. Combining his academic interests (creative writing and political science), he says he writes when he is angry about, or disagrees with, the world of politics. Mick says of writing: "It's kind of an escape from reality. I do it for recreation."

To order: Send a $12 check to Mick Joyce, 4 North Allen St., Madison, Wisconsin 53705. **Further Information:** E-mail ezgo.joyce@tds.net Published by Goblin Fern Press, Inc.

ACN

Augmentative Communication News (ISSN #0897-9278) is published quarterly. Copyright 2005 by Augmentative Communication, Inc., One Surf Way, Suite 237, Monterey, CA 93940. Reproduce only with written consent.
Author: Sarah W. Blackstone
Technical Editor: Carole Krezman
Managing Editor: Harvey Pressman
One Year Subscription: Personal check U.S. & Canada = $50 U.S.; Overseas = $62 U.S.
Institutions, libraries, schools, hospitals, *etc*.: U.S. & Canada=$75 U.S.; Overseas = $88 U.S.
Single issue rate = $10. Special rates for consumers and full-time students.
Periodicals Postage rate paid at Monterey, CA. POSTMASTER send address changes to ***Augmentative Communication, Inc.,*** 1 Surf Way, Suite 237, Monterey, CA 93940.
Telephone: 831-649-3050;
FAX: 831- 646-5428.
email: sarahblack@aol.com