Addressing the Shortage of Qualified Pediatric Audiologists

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- Principles:
 - Newborn hearing screening
 - Diagnosis of hearing loss
 - Information and counseling
 - Technology
 - Early Intervention
 - Continued vigilance

• "An audiologist is a person who, by virtue of academic degree, clinical training and license to practice, is qualified to provide services related to the prevention of hearing loss and the audiological diagnosis, identification, assessment, and nonmedical and nonsurgical treatment of persons with impairment of auditory and vestibular function, and to the prevention of impairments associated with them"

- Roles of the audiologist:
 - Newborn hearing screening program
 - Follow-up component
 - Treatment and management component
 - Educational setting
 - Other roles

- Challenges & Opportunities
 - Lost to follow-up
 - Shortage of professionals
 - Lack of timely referrals
 - Poor reimbursement and funding
 - Poor tracking
 - Lack of services
 - Lack of in-service education
 - Regulatory barriers

Lost to follow-up

- Many babies screened are not rescreened in many states
- A significant percentage of rescreens never get to a diagnostic evaluation
- Too many diagnosed hearing losses never get to early intervention
- Why not??

- Challenges & Opportunities
 - Lost to follow-up
 - Shortage of professionals
 - Lack of timely referrals
 - Poor reimbursement and funding
 - Poor tracking
 - Lack of services
 - Lack of in-service education
 - Regulatory barriers

Shortage of Professionals

- How do we know?
 - Numbers
 - Qualifications
 - Equipment
 - Distribution
 - Family experience

Shortage of Professionals

- Contributing factors:
 - Training and experience
 - Equipment and facilities
 - Time demands
 - Poor (if any) reimbursements
 - Desire

- Opportunities:
 - Better screening technology
 - Better data management and tracking systems
 - Better diagnostic equipment and techniques
 - Refine techniques for amplification selection and fitting
 - Etc, etc.

Addressing the Shortage

• Preservice Au.D. training programs

Au.D. Training Programs

Diagnostic Procedure:	Class	Univ.Pra	Ext. Prac
High Frequency Tympanograms	16	12	10
High Frequency Reflexes	14	8	5
Otoacoustic Emissions	17	15	15
ABR-Click	17	13	14
ABR-Tone Burst	17	11	13
ABR-Bone Conducted	17	9	9
ASSR	17	9	6
Infant Behavioral Audiometry	17	15	14

Au.D. Training Programs

Infant Amplification	Class	Univ.Pra	Ext.Prac
Real Ear to Coupler Difference	16	11	12
Infant Earmold Issues	17	13	14
Real-Ear Verification Procedures	17	13	12
Audibility and Speech Mapping	17	11	12
FM and Assistive Listening Device Issues	17	11	11
Validation Procedures	17	12	14

Au.D. Training Programs

EHDI Program Components	Class	Univ.Pra	Ext.Prac
State Newborn Hearing Screening Legislation	17	6	6
State Reporting and Tracking Requirements	16	9	12
Data Management Tracking Methods & Software	12	4	4
Early Intervention Referral Requirements	17	10	11
IFSP Process	14	4	10
Risk Factors for Late Onset & Progressive Loss	17	13	11
Counseling Strategies for Families of Infants/Toddlers	17	14	14
Audiologist's Role in Providing Early Intervention	17	15	10
Review of Research in Related Areas	17	5	5
National Goals (1, 3, 6)	14	6	8

Addressing the Shortage

- Preservice Au.D. training programs
- Imservice

Inservice

- Transitional Au.D. Programs
- Workshops

- Diagnostics and Amplification
- for Infants and Toddlers
- A.T Still University
- Arizona School of Health Sciences
- 5850 E. Still Circle
- Mesa, AZ 85206
- A.T.Still University and the National Center for Hearing Assessment and Management (NCHAM) announce an exciting opportunity for you to enhance your knowledge and skills in the assessment of hearing loss for infants and strategies to ensure appropriate amplification and intervention for infants and toddlers with hearing loss. This training combines on-line preparation with a four day session emphasizing clinical procedures and hands-on practicum.
- August, 2008
- Arizona School of Health Sciences Mesa, Arizona
- NCHAM
- Utah State University
- 2880 Old Main Hill
- Logan, UT 84322

On-line Instruction

Required to attend on-site workshop

Weekly readings and case studies will increase theoretical and clinical knowledge. The reading list includes current related information regarding diagnostics, amplification and intervention for infants and young children. The course textbook is the *New Handbook of Auditory Evoked Responses* by Dr. Hall (included in the registration fee.) Additional reading material will be available for download from the website. Material will be discussed during weekly chat sessions with mentors. Questions may be posted on web-based bulletin board. Participants will be required to successfully complete an on-line exam to measure their understanding of the background information after the chat room sessions have been completed.

Chat Room Details:

All participants will be asked to participate in a conference call prior to the start of the on-line instruction. During that call, you will be introduced to your on-line mentor and briefed on procedures for the on-line chats. Technical requirements for the on-line chats are a computer with internet access, Microsoft Internet Explorer, Mozilla or similar web browser and willingness to participate. You DO NOT need to be a computer guru to be able to participate effectively in the on-line portion of this workshop.

Chat Room Dates:

Weekly 1.5 hour chat rooms: (All times Eastern Standard Time)

Tuesday, January 22, 2008, 8 PM or Wednesday, January 23, 2008, 9 PM

Tuesday, January 29, 2008, 8 PM or Wednesday, January 24, 2008 9 PM

Tuesday, February 5, 2008, 8 PM or Wednesday, February 6, 2008, 9 PM

Tuesday, February 12, 2008, 8 PM or Wednesday, February 13, 2008, 9 PM

Tuesday, February 19, 2008, 8 PM or Wednesday, February 20, 2008, 9 PM

(Additional chat rooms or times may be arranged, depending on the needs of the group)

On-line Exam

The on-line exam will be available during the week of February 23 through February 29, 2008. Participants who are familiar with the material in the text, the readings and discussed during the chats will have no difficulty passing this exam.

Technical Assistance

You will be provided with a link and telephone number for technical assistance to help resolve any problems you might encounter during the on-line portion of the workshop

On-site Instruction

Four days of clinically-based presentations by Dr. James Hall, Mr. Shane Moodie, Dr. Rebekah Cunningham, Dr. Randi Winston, and Dr. Karen Ditty. Hands-on experience with the clinical equipment used for auditory diagnostics and amplification selection for infants will be provided.

Dr. Hall will discuss:

- Timely, appropriate diagnosis
- Anatomy and physiology of the infant auditory system
- Electophysical results in pediatric patients
- Otoacoustic emissions in pediatric patients
- ABR—click and frequency specific measures
- Bone conduction measures
- Use of sedation in infants

Dr Cunningham will discuss:

- Behavioral assessment of children
- Cochlear implants for infants and children
- Assisting parents in the decision making process

Mr. Moodie will discuss:

- Evolution and application of the DSL method
- The importance of RECD in infant fittings
- The use of ABR data in the DSL method
- Validation of hearing instrumentation
- Variables to consider in fitting amplification

Dr. Winston, Dr. Ditty and others will discuss

- Report writing
- Communication options
- Early Intervention approaches
- Data management and tracking
- Working within the EHDI system

Hands-on Experience

Breakout hands-on sessions will afford you the opportunity to apply procedures discussed during the didactic session. Equipment and mentors will be available to help guide you through this portion of the workshop.

Practicum Experience:

Each participant will be asked to complete diagnostic evaluations for three infants using the protocols presented in the course, and to submit a written report for each of the three infants. Practicum mentors will read each report and provide helpful feedback. Participants and course mentors will work together to arrange a practicum situation that meets each participant's individual needs.

Detailed itinerary and further information online at www.infanthearing.org

Inservice

- Transitional Au.D. Programs
- Workshops
- Presentations
- Mentoring Opportunities

Addressing the Shortage

- Preservice Au.D. training programs
- Inservice
- Equipment

Questions

- Preservice training
 - How can we assure students in training will receive all the EHDI information they need?
 - How can we arrange practicums in such a way that all students receive sufficient infant diagnostic and amplification experience?
 - Should we consider post-graduate fellowships in Pediatric Audiology?
 - Should there be some incentives provided to encourage newly minted Au.D.'s to specialize in pediatrics?

In-service Training

- How can we provide more and better in-service opportunities for practicing audiologists?
- How can we better utilize distance learning or telemedicine to enhance training efforts?
- How can we fund training grants, traineeships or workshops more fully?
- How can we encourage facilities to offer mentorship opportunities to interested audiologists?
- How could we provide traveling "experts" to serve as a resource for community audiologists?

Equipment

- How could we fund more equipment for interested audiologists?
- How could we provide traveling or shared equipment for a region?

Reimbursement

- How can we increase reimbursement levels to sufficiently cover the extra time and expertise demanded by infants/toddlers?
- How do we establish sufficient funding levels for amplification and assistive devices for this population?

Big Question:

- How can we increase the pool of available Pediatric Audiologists so:
 - Infants and toddlers can be seen in a competent, timely manner
 - Families can access services without extensive travel
 - Our EHDI children can receive all the services they so desperately deserve??

