


MEMORANDUM

TO: County Special Education Directors
RESA Special Education Administrators

FROM:  Lynn Boyer, Executive Director
Clayton Burch, Coordinator
Office of Special Programs, Extended & Early Learning

DATE: March 3, 2010

SUBJECT: Program Considerations for Transitioning to Part B Preschool Children with Cochlear Implants

The attached guidance document has been developed to assist IEP teams in making appropriate educational decisions for young children with cochlear implants who are transitioning into Part B programs. Although these students often enter our schools with age equivalent spoken language, school districts must provide essential program and environmental components to ensure continued language growth for these children who are deemed deaf or hard of hearing.

The guidance document complements Policy 2419 requirements concerning eligibility and IEP considerations for this population. Children ages 3-5 who meet the eligibility requirements under deaf or hard of hearing shall be identified under that respective exceptionality and not developmental delay. The WVDE Communication Plan for students who are deaf or hard of hearing is available at <https://wvde.state.wv.us/osp/communicationplanoct07c.pdf> and will assist the IEP team in addressing the specific communication considerations required by IDEA/Policy 2419 for these students.

For additional information or assistance, please contact Annette Carey at acarey@access.k12.wv.us or Kathy Knighton at knighton@access.k12.wv.us

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Attachment

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Program Considerations for Transitioning Preschool Children with Cochlear Implants (CIs)

Overview:

West Virginia schools have experienced a dramatic increase in the number of children entering school with cochlear implants. In order to provide an appropriate educational setting for these students, school districts must be aware of the essential program components required to ensure the successful transition of these students into educational programs supporting and encouraging their continued language growth.

For typically developing children (with normal hearing), ninety percent (90%) of all learning occurs incidentally rather than through direct interactions. Language is learned incidentally through hearing and is a continuous process through the child's formative years. Technology has afforded children who are deaf a unique and unprecedented opportunity to access spoken language. Research clearly demonstrates intensive early intervention enables many of these children to transition into our schools with age appropriate spoken language skills. Nonetheless, cochlear implants do not provide normal hearing so the responsibility for ensuring this continued language growth shifts to the school district.

Least restrictive environment (LRE) must be based on the individual needs of the student. For children who are deaf and hard of hearing, LRE consideration includes the child's language and communication needs as well as opportunities for direct communication with peers and professional personnel. The further the distance from the speaker, whether teacher or peer, the less the child will understand. This is even more complicated when noise including multiple conversations is present (Signal to Noise Ratio – SNR). These children do not have access to distance hearing. Thus the learning environment must be adapted to ensure continued access to incidental language and continued development in this area.

Even with an acoustically appropriate classroom environment, children with CI's do not always hear clearly enough to catch all of the incidental language available to their typical hearing peers. To continue their spoken language learning and to foster academic growth, a child with a CI needs ongoing directed instruction, including pre-teaching, individualized listening (auditory skill) development, and speech and language services.

Components of an Appropriate Educational Environment

*Even with congenital deafness, preschoolers who have received cochlear implants and prescribed early intervention services often enter the educational system with spoken language abilities close to or equivalent to their hearing peers. The following components are required for **continued** age-appropriate language development.*

1. Instruction
 - a. Diagnostic-prescriptive intensive instruction should be designed to provide three times the exposure to vocabulary and language structures when compared to exposure provided to a normal hearing child.
 - b. A sound field FM system improves the SNR for the teacher only; it does **not** improve the SNR for communicating with others in the classroom such as students/peers. It is not sufficient to address either the background noise or the reverberation issues for children with CIs.

- c. A small group of 6 children is recommended in the classroom to ensure that direct communication with peers is accessible.

2. Audiological Services and Support

Hearing and Listening Monitoring

- There should be constant evaluation of listening skills during class and speech therapy using the LING Six Sounds (plus Silence).
- Daily monitoring of cochlear implant(s) across the LING Sounds is necessary to:
 - i. insure appropriate CI Program is set depending upon classroom/instructional environment, and
 - ii. appropriately fit and maintain child's personal FM system.
- Teachers and therapists must be able to identify behaviors suggesting malfunctioning cochlear implant or the need of mapping/programming.
- The following audiological information is critical:
 - i. Discrimination Scores in quiet
 - PBK (Phonetically Balanced Kindergarten test -open set-presenting a stimulus without providing answers)
 - ESP (Early Speech Perception test -closed set-presentation of all possible choices)
 - ii. Discrimination Scores in noise
 - PBK (open set)
 - ESP (closed set)

3. Listening Environment/Environmental Modifications

The ability of the student to hear instruction from the teacher or conversations with his/her peers is decreased by the noise level of the environment and the distance between the speaker(s) and the child. Speech discrimination is significantly impacted by the Signal to Noise Ratio (SNR) in a classroom.

- Children need the desired signal to be 10x or approximately 15 to 20 dB louder than background noise in order to clearly discriminate words.
- In a typical classroom the SNR is unstable. Children with normal hearing will adapt unlike a child with a cochlear implant.
- The number of simultaneous auditory conversations and activities should be limited.
- Acoustic Evaluation of Classroom (ANSI standards) should be obtained. *Possible Classroom Recommendations/Components of an Acoustic Evaluation:*
 - i. Acoustic ceiling tiles
 - ii. Carpeting
 - iii. SNR +15/+20 dB
 - iv. Favorable background noise level 35 dB
 - v. Reverberation time 0.6 seconds
 - vi. Favorable positioning of talkers: sitting across from child is not as favorable for SNR as sitting next to the child.
 - vii. Background noise level 40/45 dB with teacher voice at 75 to 80 dB.