FACTS ON UNHS AND EDUCATIONAL OUTCOMES OF COCHLEAR IMPLANTS

Universal Newborn Hearing Screening

- Deafness is the most common birth defect in the U.S. Thirty three babies are born every day with some form of hearing loss. One in one thousand is born profoundly deaf with another 2 to 3 out of one thousand born with partial hearing loss.[1]

- Of the 12,000 babies in the United States born annually with some form of hearing loss, only half exhibit a risk factor – meaning that if only high-risk infants are screened, half of the infants with some form of hearing loss will not be tested and identified.[2] In actual implementation, risk-based newborn hearing screening programs identify only 10-20% of infants with hearing loss.[3]

- Recent clinical studies indicate that early detection of hearing loss followed with appropriate intervention minimizes the need for extensive habilitation during the school years and therefore reduces the burden on the IDEA Part B program.[4] [5] In contrast, a 30-year Gallaudet study revealed that half of the children with hearing loss graduate from high school with a 4th grade or lower reading level.[6]

Cochlear implants increase the likelihood that a student reaches mainstreaming criteria

- Research indicates that special education in elementary school is less necessary when children have had "greater than 2 years of implant experience" before starting school. The children are "mainstreamed at twice the rate or more of age matched children with profound hearing loss who do not have implants.[7]

- The more a deaf child can hear, the more easily that child can learn to talk demonstrating the important aspect of cochlear implantation in discriminating sounds and learning to speak.[8] Children with cochlear implants, when provided with intensive oral education can demonstrate language skills in the average range when compared to normal-hearing children and in reading within 80% of their normal-hearing peers. Children implanted between the ages of 12 months to 18 months show improvement in auditory skill acquisition at ages closest to those of normal hearing children.[9]

- Children with average learning ability, who receive an implant at or before 5 years of age, have the potential to produce and understand English language at a level comparable with that of their hearing age peers.[10] Maximum benefit is obtained when the child receives access to the most up to date speech processing strategies and careful monitoring of the implant to ensure a well-fitted map and an educational environment that provides a consistent emphasis on developing speech, auditory and spoken language skills.

- Data suggest that cochlear implants can be responsible for dramatic increases in verbal IQ for deaf children, based upon improved verbal development. Other critical factors in addition to early implantation that contribute to the increase in verbal IQ scores include skilled pediatric audiologists to readily adjust maps, oral instruction in small group settings by skilled teachers and instructional training provided to parents.[11]

- Reading performance of children with two years of experience with multichannel cochlear implants when compared to profound hearing impairments who did not use implants, indicate that reading levels can be achieved at grade level or within 8 months of grade level in public school settings. [12]

Cochlear Implants offer significant financial benefits

- According to the National Center for Hearing Assessment and Management, the cost of educating a deaf child through high school is over $420,000.[13] The same child, if identified at birth and given a cochlear implant and/or hearing aid, can attend mainstream elementary and high school classes.[14] Based upon data in 1993, the cost of educating children with hearing loss in residential settings can amount to $35,780.00 a year, self-contained classes $9,689.00 a year, and regular classes $3,383.00 a year.[15]

- A John Hopkins study reports that cochlear implants not only improve children's quality of life, but also are highly cost-effective, with an expected lifetime savings to society of $53,198 per child[16]

- Severe to profound hearing loss is expected to cost society $297,000.00 over the lifetime of an individual. Most of these losses (87%) are due to reduced work productivity although the use of special education resources among children contributes an additional 21%. Lifetime costs for those with prelingual onset exceed one million dollars. These high costs suggest that interventions aimed at children such as early identification and aggressive interventions may have substantial payback.[17]

- The University of California at San Diego and the CA Dept. of Vocational Rehabilitation study found that profoundly hearing impaired persons were often associated with the lowest educational levels, lowest family incomes and lowest percentage working for a total cost to society of over $121 billion in education, 2.5 billion in lost workforce productivity and $2 billion for the cost of equal access.[18]

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