

From Bench to Bedside: Evoked potentials and Universal Newborn hearing Screening.

The need to identify newborns referred from universal newborn hearing screening propelled ABR into clinical acceptance in pediatric audiology, but not until about 2000. Although research on auditory evoked potentials had been ongoing for 20 years and clinical equipment was available, when UNHS was introduced in the United States in 1992, auditory brain stem testing was not standard in the clinical practice of pediatric audiology. Audiologists were skeptical of using these technologies in audiological evaluations and the gold standard was behavioral. Many diagnoses were not occurring until 12 months after the newborn hearing screening.

This is the story of the long and winding road about what was required to move from bench to bedside. The necessity of the clinical use of ABR testing in pediatrics could only be proven if behavioral testing was not possible and therefore, required the referral of newborns. But, newborns were only referred if universal newborn hearing screening (UNHS) was established. UNHS could only be established if there were research findings to respond to key public health questions and there was no funded research to respond to these questions. This presentation will address the challenges of pivoting research to address a public health agenda, the speed of the clinical focus from behavioral to evoked potentials, the rewards and consequences in research funding for responding to the national need.

Bio:

Dr. Christine Yoshinaga-Itano is a Research Professor, Institute of Cognitive Science, Professor Emerita, Department of Speech, Language & Hearing Sciences, at the University of Colorado, Boulder, and Visiting Professor, University of Witwatersrand, South Africa, Centre for Deaf. She has over 125 published articles and chapters with a focus on universal newborn hearing screening and predictors of developmental outcomes of children with hearing loss with an emphasis on children and families from multicultural/linguistic backgrounds, and those with socio-economic and linguistic challenges. She received Honors from the American Speech/Language & Hearing Association and was Jerger Career Research Awardee from the American Academy of Audiology. She is a member of the Audiology committee for the International Association of Communication Sciences and Disorders (IALP) and the Audiology committee of the Global Coalition for Hearing Health.