Identification of Hearing Loss For Infants and Toddlers in Early Intervention Programs

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The Early Intervention Program (EI) is a federal entitlement to evaluation and services for children birth to three with developmental delay. EI is based on education law, with procedures like those in special education. This creates quality assurance (QA) problems for medically involved infants and toddlers. Because of health insurance/managed care restrictions, EI is becoming the sole option for infant-toddler developmental assessment. One QA problem is the high number of toddlers receiving speech-language therapy without having had their hearing tested. New York City has one of the nation's largest municipal EI programs. In 1998, 9,556 of 11,962 (79.9%) EI eligible infants and toddlers were authorized for speech-language therapy. Fewer than 3% had their hearing tested. The degree to which hearing loss may be a missed diagnosis is indicated by a 1993 Japanese study which found that 31% of children with communication disorders from 1 to 6 years of age had at least mild hearing loss. Of those with hearing loss, 88% had otitis media with effusion, 10% sensorineural hearing loss, and 2% cerumenous plug. These data are consistent with a 1998 Mount Sinai Hospital (New York City) study which found that 41% of EI eligible children (mean age, 21 months) failed audiological testing; 12% were diagnosed with hearing loss. We will discuss an innovative use of a new hearing screening technology, otoacoustic emission (OAE), as part of a comprehensive screening program to identify hearing loss in an EI service population. Feasibility of implementation and prevalence data will be presented.