ABSTRACT

This poster describes progress to date on a 3 year project funded by The Association of University Centers on Disabilities to investigate the feasibility of monitoring infants with risk factors for late-onset or progressive hearing loss. JCIH (2000) recommended that all-risk infants have their hearing sensitivity tracked and assessed on a periodic basis. However, physicians are reluctant to refer babies who pass newborn hearing screening, but have one or more risk factors for late-onset hearing loss. Issues include insufficient data on the occurrence of hearing loss for each risk factor, incorrect reporting of risk factors by hospitals and cost of follow-up. An infant tracking and surveillance system developed through the Centers for Disease Control and Prevention is used to track infants screened in Washington. The Washington State Early Hearing Loss Detection, Diagnosis, and Intervention (EHDDI) program has approximately 145,000 infants that are being tracked for late-onset and/or progressive hearing loss. Data on incidence, age of diagnosis and etiology are presented. In addition, costs associated with education about risk factors, evaluation of attitudes and experiences of hearing screening personnel, audiologists, and primary care physicians and resources required to track children for late-onset hearing loss are discussed.

Work supported by grant #RTOI-2004-01-05 from the Association of University Centers on Disabilities.

SPECIFIC OBJECTIVES

- Evaluate the efficacy of the Joint Committee on Infant Hearing 2000 recommended neonatal risk indicators for progressive and/or late-onset hearing loss.
- Ensure the accuracy of reporting of the Joint Committee on Infant Hearing 2000 neonatal risk indicators for progressive and/or late-onset hearing loss by hospitals by implementing quality control measures.
- Evaluate the compliance with the Joint Committee on Infant Hearing 2000 recommendations for monitoring and assessment by the child’s primary care physician and parents.

DATA COLLECTION

The Washington State Department of Health (DOH) collects hearing screening, risk factor and diagnostic audiological data for infants born in Washington. Letters stating recommended follow-up are sent to PCPs of infants who pass their newborn hearing screen and have one or more risk factors for late-onset or progressive hearing loss (JCIH 2000), excluding a NICU stay >48 hours due to the large volume. Over 145,000 infants were born in Washington in 2005-2006 and are coded for screening, risk factor, and diagnostic information in the DOH database.

Survey of Physicians

Physicians known to have at least one child in their practice who passed their newborn hearing screen but have one or more risk factors for hearing loss were surveyed to evaluate their attitudes and experiences towards follow-up. The majority indicated they share information with the parent, monitor hearing at well-child checks, and refer to audiology as indicated. The most common barriers to follow-up that were indicated are:
- Family compliance.
- Cost of follow-up/insurance coverage.
- Physician compliance.
- Availability of local pediatric audiology.
- Stable medical home.
- Accuracy in reporting risk factors.
- Frequency of Audiology visits.

Physician Perspective on JCIH (2000) Recommendations for Follow-up of Infants with Risk Factors

Physicians were surveyed to determine their perspective on the JCIH (2000) recommendations for follow-up of infants with risk factors. The recommendations are of unproven benefit. Physicians indicated the following:

- Family compliance.
- Cost of follow-up/insurance coverage.
- Physician compliance.
- Availability of local pediatric audiology.
- Stable medical home.
- Accuracy in reporting risk factors.
- Frequency of Audiology visits.

Accuracy in Reporting Risk Factors by Birth Hospital (as Judged by PCP)

Accuracy in reporting risk factors by birth hospital was assessed by PCPs. The accuracy is as follows:

- NICU Stay >48 hours
- Syndromes
- Craniofacial Anomalies
- Perinatal Infections

Importance of Each Risk Factor in Identifying Hearing Loss as Judged by Physicians

Physicians were asked to rate the importance of each risk factor in identifying hearing loss. The factors are as follows:

- NICU Stay >48 hours
- Syndromes
- Craniofacial Anomalies
- Perinatal Infections