EHDI Experts' New Role In Early Childhood Settings

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Does this ring a bell?

- Subjective methods are used, if and when children are screened after newborn period
- Most children do not receive another objective screening until school years
- Head Start is one place where screening IS taking place for infants and toddlers
- Growing interest among health care providers, Part C programs, etc., to provide objective hearing screenings

Head Start Success

Purpose:

- update hearing screening practices for children birth to three years served by Head Start programs nationwide through use of Otoacoustic Emissions (OAE) technology
- ensure that all children with hearing health needs receive timely and appropriate intervention.

Head Start Success

Outcomes:

- More than 150 programs trained to implement OAE screening
- Identifying a wide range of hearing disorders
- Identifying approximately 2 per 1000 with permanent hearing loss
- Approximately 18 per 1000 with transient conductive hearing loss

Head Start Success

Expanding the roles of EHDI Experts in addressing:

- Lost-to-follow-up
- Need for periodic screening

OAE Screenings in Healthcare Settings

- With appropriate training and TA from an audiologist, screening in healthcare settings is feasible
- After the first 339 kids we have identified 2 with permanent hearing loss
- The first 105 cases of Medicaid reimbursement have recouped the cost of the screening equipment

Planning a Hearing Screening Program

- Identifying an appropriate screening method
- Selecting equipment

Selecting Equipment

- Capacity to screen quickly and efficiently with a modest amount of ambient sound
- Probe and probe covers design to stay positioned securely when children are upright and/or moving
- Probe-to-screening-unit cord length – 50 inches or more
- User-friendly displays

Planning a Hearing Screening Program

- Identifying an appropriate screening method
- Selecting equipment
- Establishing a screening protocol

The Screening Protocol

1st OAE Screening Session

Refer — Pass

2nd OAE Screening Session

Refer — Pass

Refer to health care provider for middle ear evaluation

Pneumatic Otoscopy or Tympanometry

After treatment has been completed and/or the health care provider determines that the pathway to the cochlea is clear

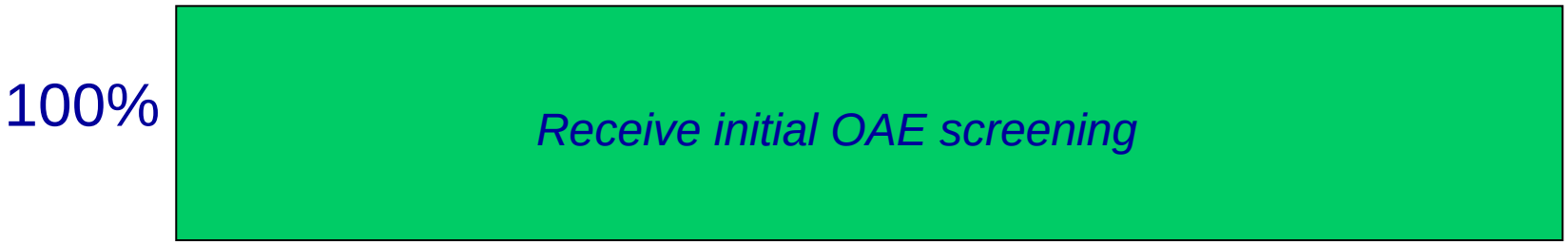
OAE Rescreen

Refer — Pass

Refer to pediatric audiologist

NOTE: a PASS on the protocol pertains to having obtained a “PASS” on both ears during a given screening session OR having ultimately passed each ear at some point across more than one screening session.

Snapshot of Implementing the OAE protocol



100% *Receive initial OAE screening*

25% *Won't pass 1st OAE. These children must receive a 2nd OAE screening within 2 weeks of initial screening*

8% *Won't pass 2nd OAE. These children must:*
1) be referred to health care provider for middle ear evaluation ASAP
2) receive 3rd OAE screening after health care provider clearance

<1% *Won't pass 3rd OAE. These children MUST be referred to audiologist ASAP for complete diagnostic evaluation – VERY IMPORTANT*

Planning a Hearing Screening Program

- Identifying an appropriate screening method
- Selecting equipment
- Establishing a screening protocol
- Determining who will screen and how many screening units are needed
- Setting up a system for tracking and follow-up
- Training

Training

- Purpose of OAE screening
- Overview of screener's roles and responsibilities
- Introduction to OAE equipment/how it works
- Use of a screening and follow-up protocol
- Equipment care and maintenance
- Hands-on practice/guidance

Instructional Package

- Three-part instructional DVD (22 min)
- Instructional Guide
- Protocol and Documentation Forms



Planning a Hearing Screening Program

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- Training
- Monitoring program quality

Monitoring Program Quality

- Monitoring screening skills
- Monitoring pass, refer and can't test rates
- Monitoring adherence with protocol in terms of sequence and timing

Planning a Hearing Screening Program

- Identifying an appropriate screening method
- Selecting equipment
- Establishing a screening protocol
- Determining who will screen and how many screening units are needed
- Setting up a system for tracking and follow-up
- Training
- Monitoring Program Quality
- Connecting programs with state/local resources

OAE Screening in Healthcare Settings: A Pilot Evaluation

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Methods

- 1 community health clinic & 2 school-based health centers in elementary schools
- 4 screeners
- 339 children screened during well-child and other healthcare visits
- Screening sequence during visits
- data collected over 4-month period

Demographics

- 339 children
- 96% ranged in age from 1 week to 5 years of age,
- 4% were between 5 and 9 years of age
- 40% uninsured, 28% Medicaid, 6% SCHIP, 26% private insurance
- 73% Hispanic ethnicity

Demographics

- 207 (61%) were visiting the clinic to receive physicals/immunizations/well-child exams.
- 71 (21%) were coming in due to specific ear/hearing related concerns, primarily Otitis Media.
- 46 (14%) illnesses other than ear related
- 15 (4%) unknown

Initial Pass/Refer Rates

Well-Child Subjects

- 79% Pass
- 7% Refer
- 14% can't test

Illness Visit Subjects

- 74% Pass
- 13% Refer
- 13% can't test

Ear/Hearing Visit Subjects

- 6% Pass
- 85% Refer
- 9% can't test

Final Outcomes

- 2 (1%) permanent hearing loss
- 314 93%) Pass
- 23 (7%) follow-up result still unknown

Cases of Permanent Hearing Loss

- Case #1 : Bilateral mild/moderate loss

  5 years old
  screened during well child visit
  parent concern

  Medical referral found no concerns

- Case #2 : Bilateral moderate/severe loss

  9 years old

  screened during well child visit
  parent concern
  in speech therapy at school

Reimbursement

- 40% uninsured
- 28% Medicaid
- 6% SCHIP
- 26% private insurance

Reimbursement

92587 OAE Limited - Screening

- National average Medicaid payment $45.05
- Utah Medicaid fee schedule $37.82

Reimbursement

339 total screened

- 203 billed
- 105 paid
- 98 pending or in process
- $3,932.48 total received

What Worked Well

- Team planning and assessment
- Hands on practice at initial training
- Support in clinic setting
- Follow screenings - no charge follow up screenings
- Standardized training materials in print and video - includes education, steps to screening, screening protocols and forms (easy to modify and/or customize for individual clinic needs)

Challenges

- When to screen during visit
- Affecting patient flow
- Time for follow up screens
- Reimbursement issues

Implications

- Increased awareness that current screening methods are not adequate
- Parents and others assume hearing screening is happening
- Technology to update hearing screening methods is available and affordable
- Initial reimbursement levels appear positive

Next Steps

- Ensure children in early intervention services are screened periodically
- Expand to additional primary care sites
- Gather additional reimbursement data
- Help audiologists expand their role to support primary care settings and referrals