It Takes a State (& a Long Time) to Create a Guideline

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National EHDI Goal 2: 2.3

List of diagnostic audiologic providers.
Each state will maintain a current resource list of diagnostic centers and/or pediatric audiologists who have experience and expertise in administering diagnostic audiologic evaluations for infants, according to the protocol and guidelines.

a. List of diagnostic centers and audiologists that have experience or expertise in conducting pediatric audiologic assessments.

b. Number of centers and audiologists that have appropriate equipment for diagnostic evaluation of infants.
In the beginning, there was a list…

- First created in 2003.
- Based upon survey of available equipment.
- Did not consider
  - How often equipment used.
  - Experience or expertise of audiologists.
Then there was a subcommittee…

- Committee formed in Feb, 2009
- Update/create guidelines to use as basis for inclusion on diagnostic center list.
- Guidelines Categories Established:
  - Equipment requirements.
  - Recommended evaluation battery.
  - Minimal staff requirements.
  - Procedures following diagnosis.
  - Required protocols/tracking.
The committee began to collect information from:

- National Organizations
- Other State Guidelines
- Michigan Diagnostic Center Guidelines
- Current Practice in Michigan
National Organizations/Guidelines

- AAA.
- ASHA.
- NCHAM.
Information from Other States:

- Review of information on NCHAM website.
- Question posted on CDC listserv.
Current Practice in Michigan

- June, 2009.
- 7 question survey sent to list of diagnostic centers.
  - Diagnostic battery
  - Timelines
  - Suggestions for guideline parameters
- 14 surveys returned.
Initial Survey of Diagnostic Centers:

“What parameters would you suggest to classify a diagnostic center?”

<table>
<thead>
<tr>
<th>Category</th>
<th>#</th>
<th>Sample Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>9</td>
<td>• At least one year experience testing infants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The more testing performed, the more accurate the results are. Infants tested</td>
</tr>
<tr>
<td></td>
<td></td>
<td>weekly.</td>
</tr>
<tr>
<td>Training</td>
<td>7</td>
<td>• Clinicians that have been trained in pediatric diagnostics.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ideal would be PhD/AuD.</td>
</tr>
<tr>
<td>Caseload</td>
<td>6</td>
<td>• We perform 100 ABRs per year.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sees infants ≥ 3-5 times/week.</td>
</tr>
</tbody>
</table>
EHDI Sponsored Workshop

- October, 2009.
- Half-day workshop prior to statewide audio meeting.
- Participants provided feedback through:
  - Small group discussion in which comments to specific questions were collected.
  - Survey completed at workshop conclusion.
Exit Survey Results: Equipment/Minimal Protocol

Preconference Exit Survey Results: October, 2009

Overall, high levels of agreement regarding equipment and test battery needed to complete diagnostic evaluation.
Exit Survey Results: Procedures following Diagnosis

Overall, high levels of agreement regarding what should be done following diagnosis.
Exit Surveys: Minimal Staff Requirements

% in agreement (score of 4 or 5)
Minimal Staff Requirements

% in agreement (score of 4 or 5)

*Of note, 25% of respondents selected “neutral” in these categories
Audiology Workshop: Comments from Small Groups

Make up of total client population:

thumbs down:
- Total Client Population – **NO**.
- Experience/Training rather than numbers seen.

thumbs up:
- Client population, distribution and frequency are crucial.
- Affirm – makeup of total client population.
Minimal Staff Requirements: National Resources

- NCHAM: “...has the technical expertise and desire to work with the infant population.”
- JCIH: “Audiologists with skills and expertise in evaluating newborn and young infants with hearing loss...”
- ASHA: “...child-friendly and child-knowledgeable staff, facilities, services, and equipment...”
Minimal Staff Requirements:

- Importance of experience and expertise well documented.
- Criteria to measure is not defined.
How Other States Measure “Experience”

2009 Review of State EHDI surveys: Questions related to Clinician Experience

- Number of referrals from EHDI
- No. id'd with HL/year
- No. or % by age

Number of States (n=6)
Other “experience” factors

- Number of diagnostic ABR/week.
- Number of infants tested in last 2 years.
- Number of infants identified with hearing loss.
- Number of years experience per audiologist.
- Age of identification.
Defining Experience/Expertise: Considerations

- Is evidence of professional training adequate (graduate work, CEU)?
- Can skills be assessed objectively through written exam or portfolio?
- How can experience be quantified?
- Does caseload with high percentage of pediatrics equal high quality?
- Should rural areas have different standards?
Final Guideline: Minimal Staff Requirement

- Michigan audiology licensure.
- At least one staff member has two years of experience working with children. Mentorship of staff members with less experience is encouraged.
- Experience and expertise in assessment of hearing in infants, defined as...
Experience and Expertise:
Must meet at least 3

- > 20% of client population is younger than 24 months.
- On average each week, > 3 patients under the age of 24 months.
- At least two diagnostic threshold ABRs completed each month.
- Identification of hearing loss in children less than 12 months of age should be commensurate with area birth rates.
Next Steps:

- April, 2010 – Draft guidelines completed.
- June, 2010 - Public Comment obtained through Survey Monkey.
- Respondents asked to state level of agreement with specific sections of guideline.
Public Comment Results:

Respondents by Profession
n=98
Public Comment Results:

- Overall, ratings indicated strong agreement among respondents.
- A few areas indicated greater than 10% of responses being “disagree”.
Diagnostic Battery:
To rule out neural hearing loss - recording of cochlear microphonic (preferred) or reflex testing.
At least one staff member has two years of experience working with children.
Comments: Years of Experience

- “Why 2 years? Why not 1? Why not 5? Many students graduating from AuD programs now have exceptional experience.”
- “Would want at least 1 audiologist to have at least 3, preferably 5, years of experience with working with children.”
- “w/ AuD degree for new audiologists, asking for them to work for 2 more yrs. w/out independence is too limiting. I know most of the grad have had great experience and knowledge to diagnose.”
Experience and Expertise:
Must meet at least 3

- >20% client population, less than 24 mos
- >3 patients under 24 mos/week
- >2 threshold ABR/month
- Id rates equal birth rates
Public Comment: Expertise

- “None of these criteria ensure anything. You can repeatedly do a lousy job in assessing infants. Conversely, you can do an excellent job, even if you do it once a week. This is a bad way to judge competence.”

- “This entire list should be required of the facility as each focuses on different aspects of hearing loss. (ie., diagnosis, test method, skill)”
Final Guideline

- 9-23-10: Approved by EHDI Advisory Committee.
- Subcommittee created “EHDI Infant Diagnostic Facility Application”.
Infant Diagnostic Center Application

- Contact Information.
- Checklist of equipment and staff resources.
  - Relies upon self report
- Protocol.
Required Components of Protocol:

- Outline of steps from time of referral on EHDI screen to final diagnosis with timeframe consistent with National EHDI goals.
- Collection parameters for diagnostic ABR.
- Pass/Refer criteria for OAE measurements.
- Established routine for reporting to Michigan EHDI.
Required Components of Protocol:

- Established routine for making referrals to facilitate early intervention.
  - Part C, ENT, medical home, CSHCS
- Routine monitoring and tracking of infants to ensure timelines are consistently being met.
- List of risk indicators for delayed onset hearing loss and monitoring schedule.
- Schedule for equipment calibration used for diagnostic evaluations.
Infant Diagnostic Center Application

- **November 12, 2010**
  - Guideline and application provided to existing diagnostic centers.

- **December 20, 2010**
  - Applications due.
Application Results as of 2-1-11

- **Re-Screen Facilities**
  - 50 centers on previous list.
  - 7 submitted applications.
  - 7 centers approved.

- **Diagnostic Centers.**
  - 22 centers on previous list.
  - 13 submitted applications.
  - 9 Centers approved.
Applications declined

- Did not fill expertise criteria.
- Did not submit complete protocols.
Future Needs/Directions

- Continued recruitment of rescreen facilities.
- Recruitment of diagnostic centers in areas needed.
  - Consider mentorship if needed.
- Distribution of final lists to birthing hospitals, medical home, Part C agencies.
What’s next?

- Sample Protocols based upon diagnostic center submissions.
- Subcommittee to create similar guidelines for amplification.
  - Expected completion date sometime in this decade.