Knowing When to Refer: How Audiologists Can Help with Early Screening for Autism Spectrum Disorder

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Objectives

1. Understand the importance of **early screening** for Autism Spectrum Disorder (ASD)
2. Identify why the **audiologist** is in a unique position to aid in early identification of ASD
3. Preview an **online learning module** to support audiologists in making appropriate referrals
Autism Spectrum Disorder (ASD)

- Neurodevelopmental disorder (DSM-5)
  - Social Communication Impairments
  - Restricted-Repetitive behaviors
- Reliable diagnosis of ASD ~24 months of age
- Early signs of ASD observable within the first year of life

Baron-Cohen, Allen, & Gillberg, 1992; Lord et al., 2006; Moore & Goodson, 2003; Zweigenbaum et al., 2013
Hearing Loss and ASD

• About 4% of children with HL have ASD

• Median age of diagnosis
  • Hearing loss: 14 months
  • ASD: 53 months
  • Dual diagnosis: 66.5 months

Jure, Rapin, & Tuchman, 1991; Meinzen-Derr, Wiley, Bishop, Manning-Courtney, Choo, & Murray, 2014; Morbidity and Mortality Weekly Report, Surveillance Summaries, 2014; Meinzen-Derr et al., 2014
Why audiologists?

- Universal screening success
- Early point of referral for speech-language delays
- May be the first referral for a child with ASD
- It’s in our scope!

Harlor & Bower, 2009; Tas et al., 2007; Myck-Wayne et al., 2013
Why it’s worth your time

• Amplification still warranted
• Potential missed window of opportunity for intervention
  • ASD-specific
  • hearing loss
• Early intervention
  • reductions in ASD symptomatology

Meinzen-Derr et al., 2014; Zweigenbaum, Bryson, & Garon, 2013; Dawson, 2008
Modules in the Electronic Library
Module topics

1. Introduction
   • Demographics of ASD and hearing loss
   • Role of audiologist in early screening for ASD

2. Etiology of ASD
   • Genetic factors
   • Environmental factors

3. Red flags
Module topics

4. Evaluation accommodations
   - ASD-associated behaviors
   - Sensory

5. Appropriate and sensitive referrals

6. Resources
   - Audiologists
   - Parents
Module 2: Etiology of ASD
Overview of Module 2

• Introduction to genetics
  • DNA, genes, chromosomes, inheritance patterns
  • Genetic testing methods (FISH, microarray, etc.)

• Etiology of autism
  • Complex genetics
Overview of Module 2

- Syndromic versus non-syndromic ASD
  - Genetic conditions associated with ASD
  - Genetic conditions associated with ASD and hearing loss
  - Environmental factors

- Why refer for genetics evaluation?
Overview of Module 2

- When should a referral to genetics be made?
- Genetics service providers
  - Role of geneticist & genetic counselor
  - How to find a genetics provider in your area
Etiology of ASD

Genetic diagnosis in about 20-30% of cases

Geschwind, 2011; Rosti et al., 2013
Genetic Heterogeneity

Chang et al., 2015
Why should a child with ASD be referred to Genetics?

- Establish a diagnosis
  - natural history/prognostic information
  - appropriate medical management
  - recurrence risks
  - opportunity for prenatal diagnosis
- Diagnosis not established
  - coordinate medical management
  - empiric recurrence risks
When should a child with ASD be referred to Genetics?

- Suspicion for a syndrome
- Intellectual disability
- Birth defects
- Multiple minor anomalies
- Epilepsy

http://www.elu.sgul.ac.uk/rehash/guest/scorm/120/package/content/dysmorphic.htm
When should a child with ASD be referred to Genetics?

- micro/macrocephaly
- certain skin findings
- regression
- stereotypic hand movements

[Image of microcephaly]


[Image of stereotypic hand movements]
When should a child with ASD be referred to Genetics?

- Multiple affected family members
  - more common in non-syndromic ASD vs. syndromic ASD

- Family is interested
How to find a pediatric genetics provider

www.genetests.org
Module 3: Red Flags for ASD
Red Flags for ASD

• Important for parents and professionals alike
  • Help with early identification

• Purpose of this module is to familiarize audiologist with common “red flags”
  • Social/Communication Impairments
  • Restrictive, Repetitive Behaviors
# Red Flags: Social/Communication

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Age Specifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>No big smiles or other warm/joyful expressions</td>
<td>6 months</td>
</tr>
<tr>
<td>No back-and-forth sharing of sounds, smiles or other facial expressions</td>
<td>9 months</td>
</tr>
<tr>
<td>No babbling</td>
<td>12 months</td>
</tr>
<tr>
<td>No back-and-forth gestures (e.g., showing, reaching or waving)</td>
<td>12 months</td>
</tr>
<tr>
<td>No response to their name</td>
<td>12 months</td>
</tr>
<tr>
<td><strong>Does not point at objects to show interest</strong></td>
<td>14 months</td>
</tr>
<tr>
<td>No words</td>
<td>16 months</td>
</tr>
<tr>
<td>Behavior</td>
<td>Age Specifier</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Does not play &quot;pretend&quot; games (pretend to &quot;feed&quot; a doll)</td>
<td>18 months</td>
</tr>
<tr>
<td>No meaningful, two-word phrases (not including imitating or repeating)</td>
<td>24 months</td>
</tr>
<tr>
<td>Any loss of previous skills (i.e., regression)</td>
<td>Any Age</td>
</tr>
<tr>
<td>Trouble understanding people's feelings or talking about own feelings</td>
<td>Unspecified</td>
</tr>
<tr>
<td>Repeats words or phrases over and over (echolalia)</td>
<td>Unspecified</td>
</tr>
<tr>
<td>Gives unrelated answers to questions</td>
<td>Unspecified</td>
</tr>
</tbody>
</table>
## Red Flags: Restrictive Repetitive Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Age Specifier</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gets upset by minor changes (e.g., changes in routine, environment)</strong></td>
<td>Unspecified</td>
</tr>
<tr>
<td>Has obsessive interests</td>
<td>Unspecified</td>
</tr>
<tr>
<td>Flaps hands, rocks body, or spins in circles</td>
<td>Unspecified</td>
</tr>
<tr>
<td>Unusual reactions to the way things sound, smell, taste, look, or feel</td>
<td>Unspecified</td>
</tr>
</tbody>
</table>
Learn to Identify Red Flags

- You can familiarize yourself with how to identify high-risk behaviors for ASD by exploring video examples
- The First Signs® video glossary
  - 200 videos
  - Highlight differences between typical and atypical development
- The Autism Speaks® video glossary
  - Over 100 videos
  - Highlight red flags and diagnostic features to help identify early signs of ASD
Module 5: Making Sensitive Referrals
Making Sensitive Referrals

Challenges to making the referral

• Is a referral warranted?
  • Red Flags?
  • Screening Tool?
    • Modified Checklist for Autism in Toddlers, Revised (M-CHAT-R) for children 16 to 30 months
Making Sensitive Referrals

Challenges to making the referral

- Who to refer to?
  - Qualified specialists
    - Developmental pediatrician
    - Child neurologists
    - Child psychologists
    - Child psychiatrists
Making Sensitive Referrals

Time for discussion
• We need time to listen and empathize

Review parental concerns
• Parents’ experience
• Atypical behaviors for developmental stage
• Referral source
Making Sensitive Referrals

Validate parent concerns with professional observations
• *I* statement vs. *You* statement
• Typical vs. Normal
• Support vs. Help

Transform parents’ language
• Stay positive and supportive
Additional Comments/Questions?

If you have any comments, questions, or suggestions for material or resources that we should include in our module, please do not hesitate to contact us at:

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References


References Cont.

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