Communication Outcomes for Children with Cochlear Implants and Autism Spectrum Disorder

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We have the following relevant financial relationship to disclose:

We are employees of Seattle Children’s Hospital.

We have no relevant nonfinancial relationship(s) to disclose.
1.) Identify the shifts in educational settings

2.) Realize communication expectations for children with ASD and CIs may need to be modified

3.) Understand the necessity of integrating multiple communication approaches as soon as characteristics of ASD are evident in order to improve functional communication
Characteristics of ASD and Children with CIs

- Limited eye contact
- Poor social reciprocity and showing
- Frequent equipment troubleshooting
- Slow progression given traditional aural habilitation
- Restricted attention and interests
- Difficulty with imitation of actions, gestures or facial expressions
- Play may be restrictive and repetitive
- Seek or avoid sensory input
Subjects

- 12 Subjects
- Ages 29 Months – 20 years of age
- Utilizes a CI
- Confirmed diagnosis of autism

Hearing Loss Etiology

- CMV = 6
- Genetic = 2
- CHARGE = 1
- Unknown = 3

Other Diagnosis

- Prematurity = 8
- ADHD = 2
- Hirschsprung’s = 1
Educational Programs

**EI**
- N=12
- ASD DX = 1
- TC/DHH: 3
- ASL/DHH: 3
- AV/DHH: 4
- DD: 2
- ASD: 0

**Preschool**
- N=11
- ASD DX = 5
- TC/DHH: 6
- ASL/DHH: 1
- AV/DHH: 2
- DD: 1
- ASD: 0
- DHH/ASD: 1

**School Age**
- N=8
- ASD DX = 6
- TC/DHH: 4
- ASL/DHH: 0
- AV/DHH: 0
- DHH/ASD: 1
- Mainstream: 2
- ASD: 2

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Current Methods of Functional Communication

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So where do we go from here?

- Recognize the characteristics of autism
- Start modifying treatment when indicators are evident
- Implement a variety of learning opportunities across many communication modes (e.g. receptive, expressive, social, play)
- Expand toolbox of teaching strategies
- Be flexible
- Collaborate with professionals who specialize in autism
- Gather more specific information in regards to how and what communication is the most effective
Resources

- **Odyssey** - [http://www.gallaudet.edu/clerc_center/odyssey/vol_9_issue_1.html](http://www.gallaudet.edu/clerc_center/odyssey/vol_9_issue_1.html)
- **More Than Words**, by Fern Sussman
- **Early Start Denver Model for Young Children with Autism: Promoting Language, Learning and Engagement**, by Sally Rogers, PhD and Geraldine Dawson, PhD
- [www.autisminternetmodules.org](http://www.autisminternetmodules.org)
- **Deafness and Autism**, [www.audiologyonline.com](http://www.audiologyonline.com)