


Midwest Ear Institute APD Assessment


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Background


Mission Statement:

The Midwest Ear Institute is dedicated to enhancing the quality of life by restoring hearing. We accomplish this by evaluating and treating patients and by our involvement in clinical research projects. Through our work, we relieve the isolation and misunderstanding caused by hearing loss and other ear-related disorders by educating patients, their families, and professionals in the field.




APD Program at Midwest Ear Institute (MEI)

- APD Team:
 - Sarah Zlomke, Au.D., CCC-A
 - Evaluation and Therapy
 - Jamie Governal, Au.D., CCC-A
 - Evaluation
 - Megan Lawson, MS, CCC-SLP, LSLC Cert. AVEEd.
 - Therapy



APD program at MEI


- Referrals
 - Local ENTs, otologists, pediatricians, audiologists, school districts, speech pathologists, psychologists, OT's, parents
- Initial Contact
 - Front Desk
 - Audiologist
- Insurance Verification
 - Billing office checks benefits and eligibility for hearing test, APD evaluation and therapy



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APD program at MEI


- Evaluation
 - Ages 4 to 50+
 - Screening versus Diagnostic
 - 92620 / 92621 billed to insurance
- Current Stats:
 - 482 evaluations completed (from 1/1/2010 to 3/11/2015)



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MEI's APD Test Battery (4-7 years old)

- Auditory Skills Assessment
- SCAN 3 C – screening
- Phonemic Synthesis



Screening Tests

- Auditory Skills Assessment
 - Ages 3.6 to 6.11 years
 - 3 sections
 - Speech Discrimination
 - Speech discrimination in noise
 - Mimicry
 - Phonological Awareness
 - Blending
 - Rhyming
 - Non-speech Processing
 - Tonal Discrimination
 - Tonal Patterning
 - Scored by cut score and percentile rank



Screening Tests

- SCAN Screening
 - Ages: 5 to 12
 - Tests
 - Random Gap Detection Screening
 - Auditory Figure Ground +8
 - Competing Words – Free recall
 - Scored by cut score



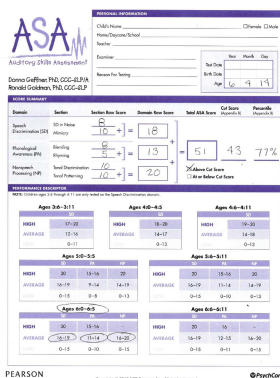
Case Presentation #1

- Case History
 - 6 year, 4 month old male
 - Referred by speech pathologist
 - Medical History
 - Adopted
 - Twin born at 34 weeks
 - History of fluid and ear infections, tubes placed in 2008
 - School History
 - Kindergarten at private school
 - Concerns with handwriting and receptive language
 - No previous therapies



Case Presentation #1

- Hearing evaluation
 - Normal tympanograms
 - Normal hearing
 - Normal word understanding in quiet
 - Normal OAE's



Case Presentation #1

- SCAN 3 – C Screening
 - Auditory Figure Ground +8
 - RE: 16, LE: 14, Total: 30 – results are below cut score of 34 and indicate right ear advantage
 - Competing Words Free Recall
 - RE: 10, LE: 2, Total: 12 – results are below cut score of 16 and indicate right ear advantage
- Impressions:
 - Auditory processing therapy to encourage development of auditory skills and to decrease ear advantage findings.
 - Return in 1 year for diagnostic auditory processing evaluation



MEI's APD Test Battery

(age 7+)

- Buffalo Model Questionnaire
- Staggered Spondaic Word (SSW) Test
- Phonemic Synthesis Test
- SCAN 3 (adult or child version)



SSW Staggered Spondaic Word (SSW) Test

- Binaural test with different words going to each ear
- Administration:
 - 40 items
 - Approximately 7.5 minutes to complete
 - Norms for ages 6 to 60
 - Counterbalanced
- Normative data is available for total errors, response bias and qualifiers



SCAN-3

- SCAN-3 (Child and Adult versions)
 - Filtered Words
 - Low pass filtered at 750Hz
 - 20 monosyllabic words to each ear, monaural
 - Auditory Figure Ground
 - +0, +8 or +12 dB SNR
 - Competing Words
 - Directed Ear
 - Free recall



SCAN-3

- SCAN-3 (Child and Adult versions)
 - Competing Sentences
 - Time Compressed Sentences
 - 60% time compressed
 - Random Gap Detection
 - Ear Advantage Scoring



Phonemic Synthesis Test

- Sound Blending Test
- Administration:
 - 25 test items
- Norms for quantitative and qualitative scores for each age group



APD program at MEI

- Therapy
 - 14 weekly 50 minute sessions
 - Followed by re-evaluation
- Coordination of Services with school and other therapists



Case Presentation #2

- Case History
 - 10 year old male
 - Referred by Restored Hope after failing an APD screen
- Medical History
 - Sensory Processing Disorder
 - Possible ADHD – no benefit with medications
 - Significant history of ear infections, tubes placed 4 times
- School History
 - Fourth Grade at a private school
 - Normal IQ
 - Low receptive language scores
 - Poor visual processing



Case Presentation #2

- BMQ – total score 30
- SSW
 - Total: 17 errors (RNC 2, RC 9, LC 4, LNC 2)
 - Type A: 5
 - 3 reversals
 - 4 delays
- PST
 - 19 Quantitative
 - 18 Qualitative



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Case Presentation #2

- SCAN 3 C
 - Filtered Words – 9th percentile
 - Competing Words – 5th percentile
 - Time Compressed Sentences – 9th percentile
 - Composite Score – 10th percentile
 - Right ear advantage on FW and TCS
- Impressions
 - Significant – all 4 types of APD
 - Therapy is needed to address deficits



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Case Presentation #3

- Case History
 - 48 year old male
 - Referred by local ENT after hearing test revealed normal hearing but concerns about understanding were still present
- Profession:
 - Realtor – has difficulty understanding clients especially when noise is present or he is on the phone.
- Medical History:
 - allergies



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Case Presentation #3

- Hearing Test
 - Normal hearing, normal tympanograms, normal reflexes, normal word understanding in quiet, present but reduced OAEs
- SSW
 - 0 errors, no qualitative findings
- SCAN 3 A
 - Auditory Figure Ground +0: 5th percentile
- BKB SIN
 - 2.5 dB SNR Loss



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Case Presentation #3

- Impressions:
 - Significant TFM deficits
 - Patient needs to undergo speech in noise training to improve
- Results:
 - You will see them in tomorrow's presentation!



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Questions?

