SOUND ADVICE: SUPPORTING FAMILIES WITH CHILDREN WHO HAVE HEARING LOSS

OUR PANEL
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Casey Redding, AuD, CCC-A  Pediatric Audiologist at KU Medical Center
Liz Schardine, MA  Coordinator for Kansas Newborn Hearing Screening Program
Erin Schuweiler, MS, Ed.  Sound START (Birth-Three) Coordinator at KSD
Gail Sprecher, AuD, CCC-A  Audiologist & Hearing Assistive Technology Coordinator at KSD
Tina Stuchlik, MA, CCC-SLP  SLP at Butler County Special Ed Interlocal Deaf Ed Team

PROFESSIONAL ROLES IN THE JOURNEY
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CASE STUDY #1: AVERY
Outpatient AABR screening at 2 weeks of age: Did not pass bilaterally
Mom reports that sibling also did not pass at birth, but follow up testing was WNL

CASE STUDY #1: AVERY
Outpatient diagnostic ABR at 4 weeks of age: Bilateral mild CHL (normal BC)
Flat tymps (1000 Hz probe tone)
CASE STUDY #1: AVERY
Returns at 3 months of age:
Did not pass OAE screening
Flat tymps, bilaterally
NEXT STEP →

CASE STUDY #1: AVERY
Refer to ENT for tube placement

CASE STUDY #1: AVERY
Post-tube visit:
• MUST repeat audiological evaluation ASAP
• Passes OAE screening bilaterally
NEXT STEP →

CASE STUDY #1: AVERY
• Report to state EHDI program
• Recommend routine hearing screening &
  continue to follow up with ENT re: middle ear status
• Discuss speech/language milestones

CASE STUDY #2: AXEL
• Healthy, term infant
• Maternal uncle and cousin have congenital hearing loss
• Did not pass NBHS bilaterally (OAE & AABR)
NEXT STEP →

CASE STUDY #2: AXEL
• Outpatient screening at 2 weeks of age
• Did not pass OAE screening
• Normal tymps (1000 Hz probe tone)
NEXT STEP →
CASE STUDY #2: AXEL

• Diagnostic ABR at 4 weeks of age
  • Normal tymps (1000 Hz probe tone)
  • Air conduction ABR shows mild to moderate hearing loss, bilaterally (500 – 4000 Hz tonebursts; good waveform morphology)

NEXT STEP

CASE STUDY #2: AXEL

• Bone conduction ABR thresholds match air conduction thresholds
• Diagnosis?

NEXT STEP

CASE STUDY #2: AXEL

• Dx: Sensorineural hearing loss

NEXT STEP

CASE STUDY #2: AXEL

• Explain the diagnosis
• Ear impressions
• Make appropriate referrals, including genetic testing
• Provide SoundBeginnings Resource Guide

NEXT STEP

CASE STUDY #2: AXEL

• Return to clinic at six weeks of age
• Repeat ABR for confirmation
• Fit hearing aids
• If family lives nearby, break this up into two appointments (confirmation ABR on one day and hearing aid fitting on another)

NEXT STEP

CASE STUDY #2: AXEL

• Repeat audiological assessment every 3 months until age 7, verify hearing aid fitting regularly
• Family chose not to do genetic testing b/c insurance wouldn't pay for it
• Family has another baby who did not pass NBHS

NEXT STEP
CASE STUDY #2: AXEL

- Skip outpatient re-screen and go straight to Diagnostic ABR
- Dx: Mild sensorineural hearing loss

NEXT STEP →

CASE STUDY #2: AXEL

- Fit hearing aids on sibling
- Re-visit topic of genetic testing
- Counsel family about possibility of progressive hearing loss
- Imaging?

CASE STUDY #3: MATEO

- Healthy, term infant
- Born with unilateral aural atresia/microtia
- Passed NBHS in the good ear

NEXT STEP →

CASE STUDY #3: MATEO

- Outpatient screening or Diagnostic ABR?
- How soon?

NEXT STEP →

CASE STUDY #3: MATEO

- Referrals?

NEXT STEP →

CASE STUDY #3: MATEO

- How to counsel parents
- Unilateral hearing loss: risks to speech/language development, hearing in background noise, localization, risk of academic difficulty
- Is EI necessary for this kiddo?

NEXT STEP →
CASE STUDY #3: MATEO

• To amplify or not?
• When?
• How??? Baha, Unilateral CI, CROS, Ad-Hear?

NEXT STEP →

CASE STUDY #3: MATEO

• Continue counseling re: importance of EI
• FM?
• Insurance reimbursement for unilateral CI?
• FDA approved?
• Surgical abutment – what age?

NEXT STEP →

CASE STUDY #4: SOPHIE

• Healthy, term infant
• Passed NBHS bilaterally
• Chronic ear infections, PE tubes placed x3
• Does not pass hearing screening in preschool
• Teacher reports that Sophie doesn’t attend well at school, misses directions and asks for repetition
• Parents are considering ADHD testing

NEXT STEP →

CASE STUDY #4: SOPHIE

• Referred for audiological assessment
• Audiologist tries conditioned play audiometry, but patient is extremely shy and will not respond consistently without prompting

NEXT STEP →

CASE STUDY #4: SOPHIE

• OAEs absent
• Tympanometry shows patent PE tubes

NEXT STEP →

CASE STUDY #4: SOPHIE

• Patient will point to pictures — speech reception threshold is 35 dB in one ear and 30 dB in the other, but you’re not sure she was really responding at the lowest level she could

NEXT STEP →
CASE STUDY #4: SOPHIE

- Try to get puretone thresholds again in the future? How soon?
- Refer for ABR? Sedated? Unsedated?

NEXT STEP →

CASE STUDY #4: SOPHIE

- Show parents how to practice play audiometry at home
- Schedule next appointment at a time where she will be most cooperative

NEXT STEP →

CASE STUDY #4: SOPHIE

- Returns to clinic, doesn't respond consistently in the booth

NEXT STEP →

CASE STUDY #4: SOPHIE

- ABR shows corrected thresholds:
  RIGHT
  500: 35 dBeHL
  1000: 30 dBeHL
  2000: 30 dBeHL
  4000: 25 dBeHL

  LEFT
  500: 30 dBeHL
  1000: 25 dBeHL
  2000: 25 dBeHL
  4000: 20 dBeHL

NEXT STEP →

CASE STUDY #4: SOPHIE

- Hearing aids? One? Two?
- FM?
- Referrals?
- Speech?
  - How to counsel parents — mild hearing loss is not a MILD problem

NEXT STEP →

CASE STUDY #4: SOPHIE

- Returns to clinic 30 days following fit
- Data logging shows an average wear time of 1.7 hours/day

NEXT STEP →
CASE STUDY #4: SOPHIE

- Hide this knowledge from parents?
- Problem solve wearing time issues
  - “Sophie is an active girl. She likes to swing and play in the sandbox. She will probably lose them at school.”

NEXT STEP →

CASE STUDY #4: SOPHIE

- Counsel re: retention strategies, check fit of molds, check insertion proficiency, loss/damage warranty
- Have her try a somersault in the office to be sure they stay put with your retention device
- Hearing loss simulation?
- Sticker chart for Sophie
- Collaborate with staff at school

NEXT STEP →

MAKE TIMELY REFERRALS, COLLABORATE, FOLLOW UP

Protocol for Newborn Hearing Screening in Kansas:

Kansas Guidelines for Infant Audiologic Assessment:

Hearing Aid Bank for birth-three: 785-368-7167

SoundBeginnings: 785-368-7167

SoundStrain: eschuweiler@kssdb.org

Deaf Mentor Program: tlatini@kssdb.org

Supporting You: A Peer Support Network: bkammer@kssdb.org

Kansas Chapter of AG Bell on Facebook: https://www.facebook.com/groups/56233886148/

Kansas School for the Deaf on Facebook: https://www.facebook.com/Kansas School for the Deaf/193075343017921/

Deaf Schools in Kansas: https://www.moreau.k12.ks.us/asp/master/aspnetmain/master.aspx?sec=54&act=41&ap=9054&ge=3

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