Best-Practice-Procedures in Pediatric Hearing Aid Fitting
The benefit in daily routine
A Case Study

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Best-Practice- Procedures
The benefit in daily routine

Help to assess:

● Over- and under-amplification
● Appropriate use of higher technology
● Helpful in unusual Cases
A Case Study

- 7 year old female
- late identification
- 1st hearing aid fitting at the age of 2 years
- new hearing aid fitted 5 years later
  - digital BTE
- parents concerned about her speech and language development
A Case Study

- Local Audiologist ⇒ new hearing aid fitting
- child ⇒ accepted new hearing aids, said „it sounds good“
- Mother ⇒ said child responded „relatively well“ to environmental sounds ⇒ „but poorly to speech“
- Parents ⇒ wanted the child examined

Audiogram
Previous Treatment

Following Best-Practice-Procedures

- complete diagnosis
- RECD-measurement carried out
- prescribed procedures (DSL[i/o]) applied
- selection of a hearing aid with high flexibility for adjustment
- thorough counseling of the parents regarding the fitting process
Assessment

Audiological Parameters

- Audiogram, UCL
- Impedance
- Speech Audiogram
- SPL-O-Gram
Evaluation

Speech audiogram Göttinger II with hearing aids

50 %

0 %

20 %

55dB  65dB  80dB
Verification

SPL-O-GRAM
Best Practice Procedures

Was maximum Benefit achieved?

„Continuous hearing aid fitting“

- what does it mean for adults?
- what does it mean for children?
Verification

Strong enough to meet prescribed target?
Verification

Readjusted to meet targets
Validation

Speech audiogram Göttinger II with hearing aids
Validation

- assessment of real-world outcomes
  - use of questionnaires
  - including child, parents, teachers

- assessment by speech therapist
Validation

Behaviour at home and in preschool - 4 weeks after

- **Child** ⇒ „sounds good, I understand very well“
- **Mother** ⇒ asked to repeat words less often, child speaks more clearly, not so tired after preschool
- **Teacher** ⇒ response during lesson improved, child joins in better in group activities
- **Speech therapist** ⇒ ↑ articulation/ vocabulary, ↑ concentration
Conclusion

In children the desired gain at all time points of the fitting is the target gain in order to take advantage for example of the sensitive phase of speech development.
Summary

- Best practice-procedures are guidelines
- they provide the standard for quality control
- they also facilitate therefore the handling of unusual cases
Best-Practice-Procedures
The benefit in daily routine

- BPPs are no guarantee for a successful fitting
- specially trained personnel are essential
- continuous education necessary
- interdisciplinary collaboration required
Thank You for Your Attention!