Treatment Planning for Adults with Hearing Loss

Agenda

- Personal experiences with Roger Technology
- What is Treatment Planning?
- Why Treatment Plan
- How to Treatment Plan
- Pre-requisite knowledge
- Pre-requisite patient information
- When to introduce the Treatment Plan
- Case Examples

Wear do I use my Roger System?

- In Restaurants, bars, cafes
- Talking to family/friends in car
- Meetings
- Lectures
- Sports
- Tour guides

- iPod/iPad
- TV
- Computer
- Place of Worship
- Mobile Phone (Bluetooth)
- Bass Guitar/Band

Conference style

- I keep the Roger Pen in Automatic Mode when in conference style meetings
- The variable knee point has been extremely effective.
- Distant soft speech is much easier to hear and understand.
- The use of the Roger Pen in quiet has been the most surprising benefit as I only used my SmartLink in noise

Interview style

- I keep the Roger Pen in Automatic Mode when using the Pen interview style
- Examples of situations:
  - Noisy Bars
  - Parties
  - Point at Waiter or Waitress in Restaurant
  - Trade Show Booth
  - Family Gatherings

Lecture Situations

- Once again, Automatic Mode has been working perfectly fine in lectures
- I use ADRO + Autosensitivity and a 1:1 mix ratio on my cochlear implant
- The 1:1 mix ratio in the CI and the Voice Activity Detector in the Roger Pen still allows me to hear friends and colleagues in close proximity to me whilst still hearing the lecturer

Communicating in the Car with Two People

- One person wears the Roger Pen around the neck
- Other will wear the Roger Clip Mic, or EasyPen again with the provided lanyard
- The automatic mode is effective when using multiple microphones

Communicating in the Restaurant with One Person

- With one person I use the Roger Pen either flat on the table or worn around the neck depending on the noise level of the room
- Most restaurants I place it one the table and keep it in automatic mode
- When the waitress comes I pick up the Pen and point it in order to hear what she has to say.
- Pointing of course automatically switches the Pen to interview mode and turns on the directional microphones.

Communicating in a Restaurant with Multiple Talkers

- The MultiTalker Network (MTN) has been absolutely remarkable if I am at a dinner party with multiple talkers
- For the first time in my life I can now communicate with ease with all talkers
- Prior to MTN, I was force to choose between which person I needed to listen to by pointing the SmartLink at the person I wanted to hear.
- Enormous benefit.

Communicating in Very Noisy Environments

- Examples include bars with live music
- Noise levels typically range between 80 – 100 dBA

1. Multitalker Network is essential. Typically with 3 other people, so I use 3 Roger microphones
2. Due to very high noise levels, I switch the mix ratio to 100% “FM”.
3. Monitoring my own voice now becomes a problem…
4. Add a fourth Roger microphone in order to monitor my own vocal levels.

Treatment Planning Defined

- Dentistry: “a schedule of procedures and appointments designed to restore, step by step, a patient's oral health. The plan contains the advantages, disadvantages, costs, alternatives, and sequelae of treatment.”. Mosby's Medical Dictionary, 9th edition. © 2009, Elsevier

- Medicine: A documented plan that describes the patient's condition and procedure(s) that will be needed, detailing the treatment to be provided and expected outcome, and expected duration of the treatment prescribed by the physician. Segen's Medical Dictionary. © 2012 Farlex, Inc.

ASHA: Guidelines for Hearing Aid Fitting for Adults

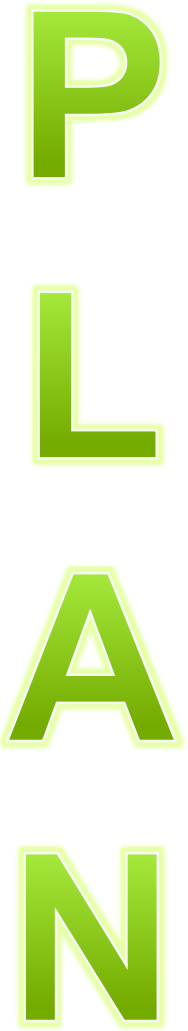
"**Treatment Planning** After completing the assessment process, the audiologist, client, and family/caregivers need to review the findings and identify areas of difficulty and need. Based on this analysis, priorities are established and specific goals for intervention are jointly agreed upon. Further, the sequencing of rehabilitative strategies is established, including when and how benefit derived from treatment is to be evaluated.

In many cases, the fitting of hearing aids will be incorporated as an early component of the plan. Under certain circumstances, it may be appropriate to determine the benefit derived from hearing aids and structured hearing aid orientation before additional intervention strategies are planned and implemented. In other cases, hearing aid fitting will be performed concurrently with additional components of the plan.

When fitting hearing aids is a component of the plan, a number of preliminary decisions are required. Decisions on specific aspects of electroacoustic performance naturally fall to the audiologist. However, all other planning decisions should be made jointly, and active participation of the client and family/caregiver in decision making is strongly encouraged.

Treatment Plans are…

- Roadmap for the patient journey
- Built around the expressed needs of the patient
- Have clear and effective solutions for the needs expressed by the patient
- Outlines what is going to be done, when it is going to be done and by whom
- Is based on a thorough and complete assessment of patient's auditory capabilities.
- Involve the patient as an active participant in the planning process
- Are specific, not vague



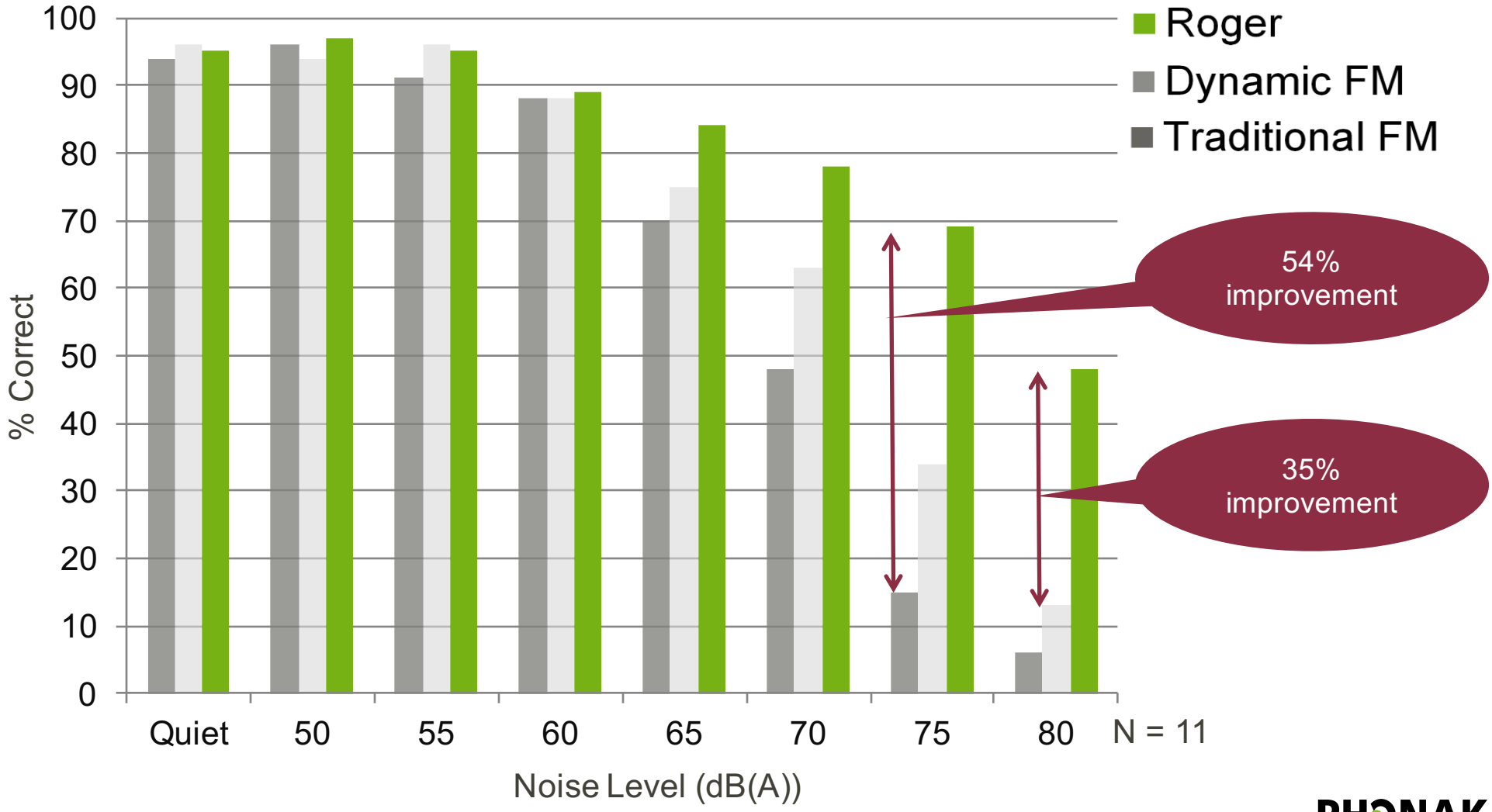
Why Do Treatment Plans?

- Systematic means of selecting the most appropriate audiological interventions.
- Provides a strategy on how to tackle communication needs of the patient
- Ensures all the needs of the patient are identified
- Improves the effectiveness of the audiologists treatments
- Avoids waiting for the patient to fail.
- Saves time in the long run

Our treatments are technologies for the most part

- **Near Field Options**
  - Hearing aids at several different performance levels (30,50,70.90)
  - Directional microphones (Ultrazoom)
  - Binaural Directional Beam-forming (Speech in Loud Noise)
- **Far Field Options**
  - Roger Pen, EasyPen Clip Mic (Quiet and Noise)
    - Different receiver options (Design integrated, Universal)
    - Different coupling options (DAI, Telecoil, via Streamer)
  - Bluetooth Microphones (Quiet only)
- **Accessories**
  - Streamers (ComPilot II, ComPilot Air)
  - EasyCall
  - DECT Phones
  - TV Link
- ***Counselling on effective use of technologies***
- ***Focus on Benefits…not Technologies***

Results-speech understanding at 5.5 m in various noise levels



Eur Arch Otorhinolaryngol
DOI 10.1007/s00405-015-3643-4

OTOLOGY

Speech understanding in noise with the Roger Pen, Naida CI Q70 processor, and integrated Roger 17 receiver in a multi-talker network

Geert De Ceulaer[1] · Julie Bestel[2] · Hans E. Mülder[3] · Felix Goldbeck[3] · Sebastien Pierre Janssens de Varebeke[4] · Paul J. Govaerts[1,5,6]

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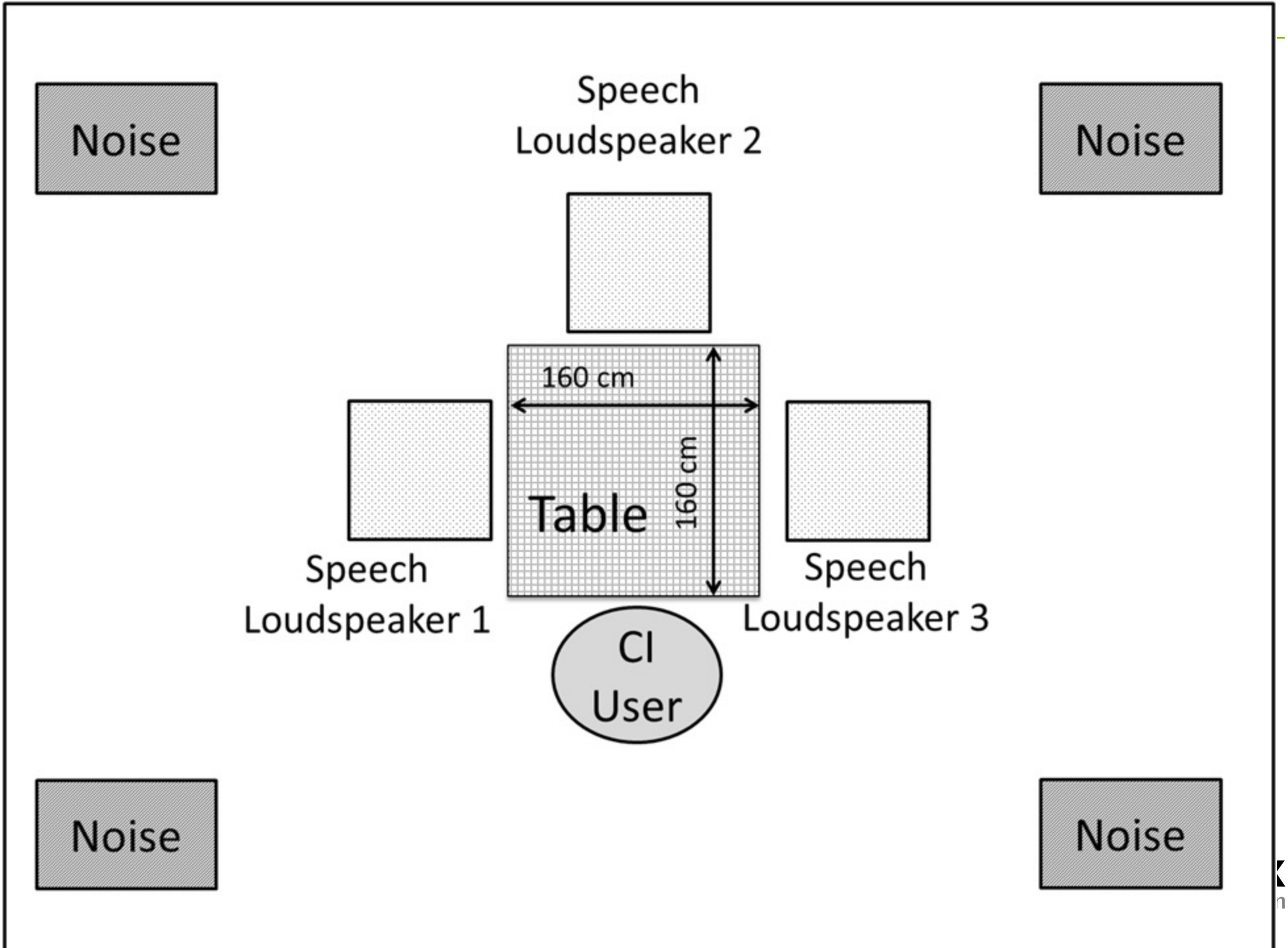
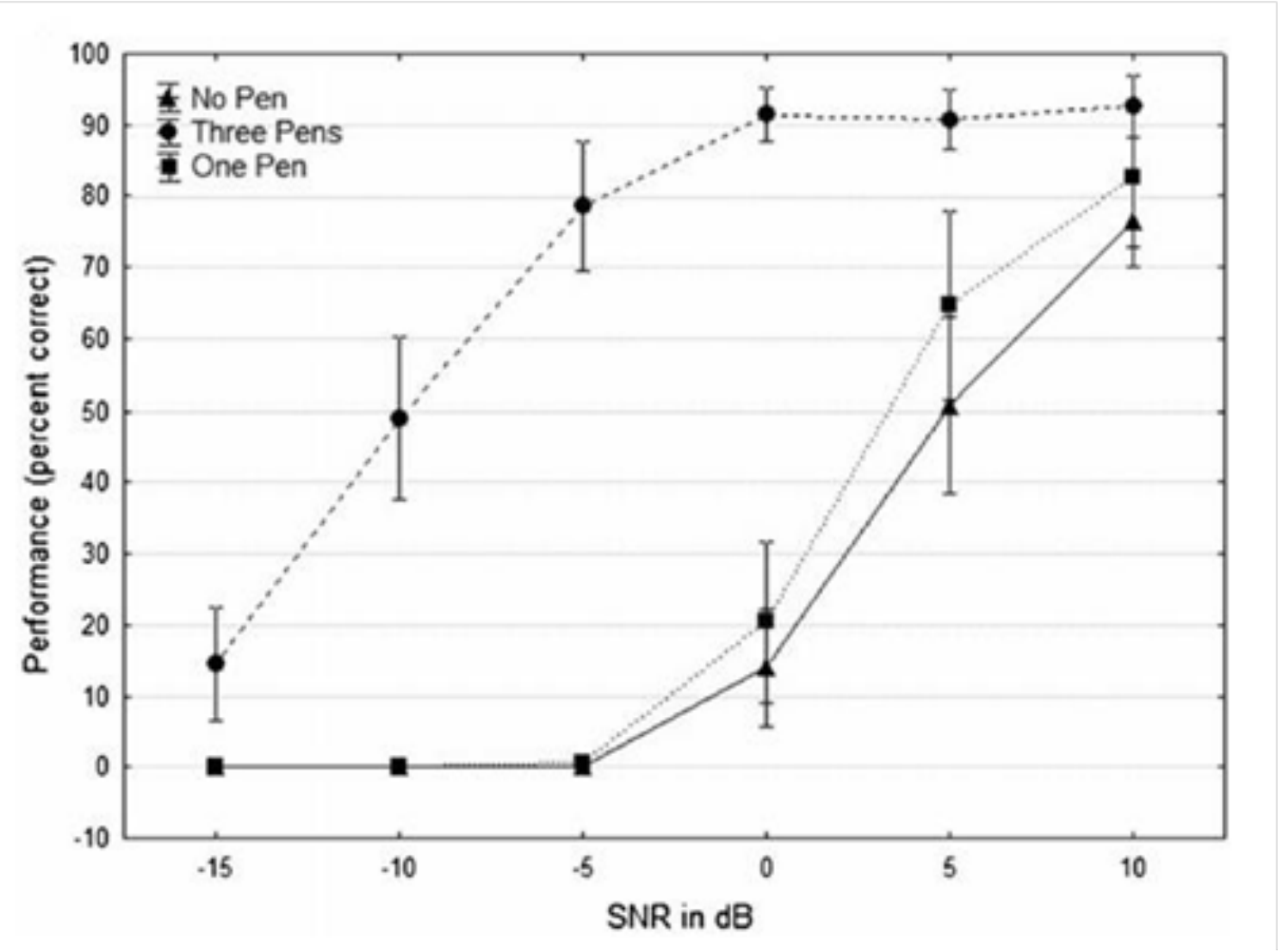

Noise
Speech
Loudspeaker 2
Noise
160 cm
160 cm
Table
Speech
Loudspeaker 1
Speech
Loudspeaker 3
CI
User
Noise
Noise

MultiTalker Network



PHONAK
life is on

Evaluation of Performance With an Adaptive Digital Remote Microphone System and a Digital Remote Microphone Audio-Streaming Accessory System

Jace Wolfe, Mila Morais Duke, Erin Schafer, Christine Jones, Hans E. Mülder, Andrew John, and Mary Hudson

+ Author Affiliations & Notes

American Journal of Audiology, September 2015, Vol. 24, 440-450.
doi:10.1044/2015_AJA-15-0018
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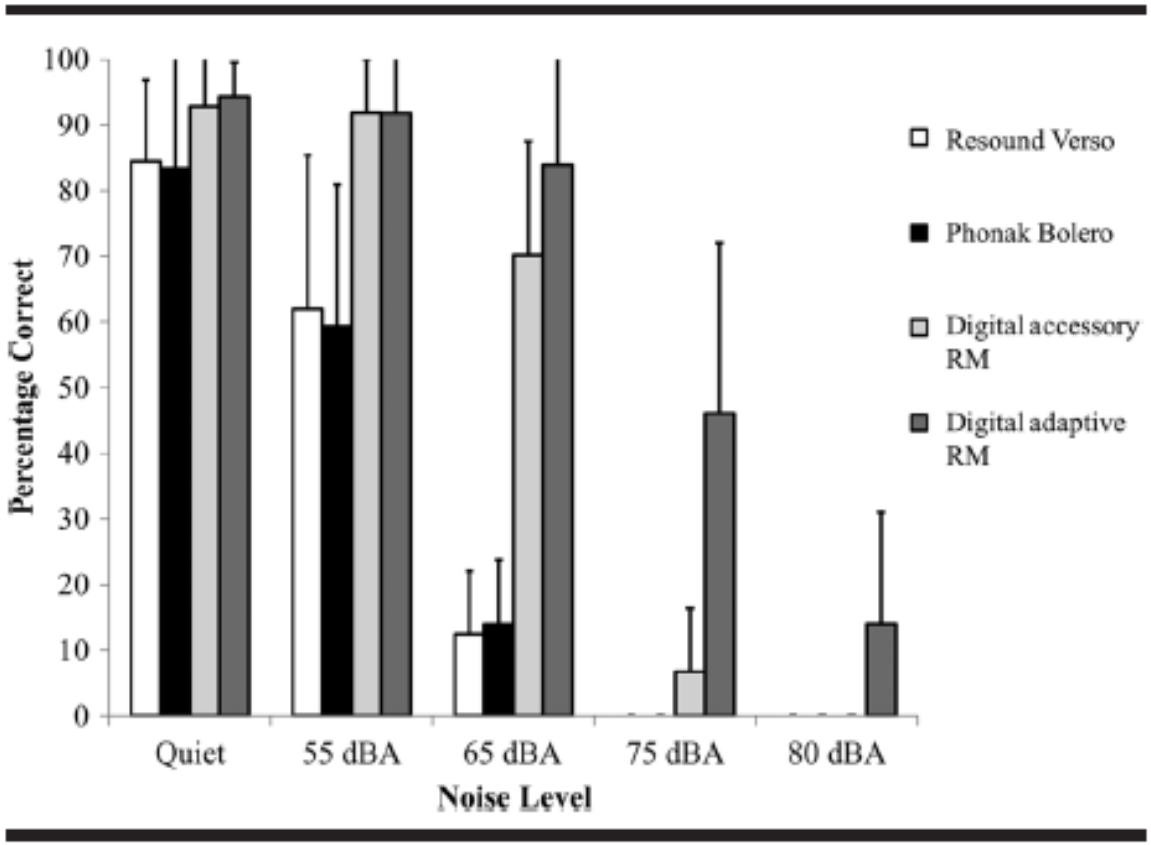
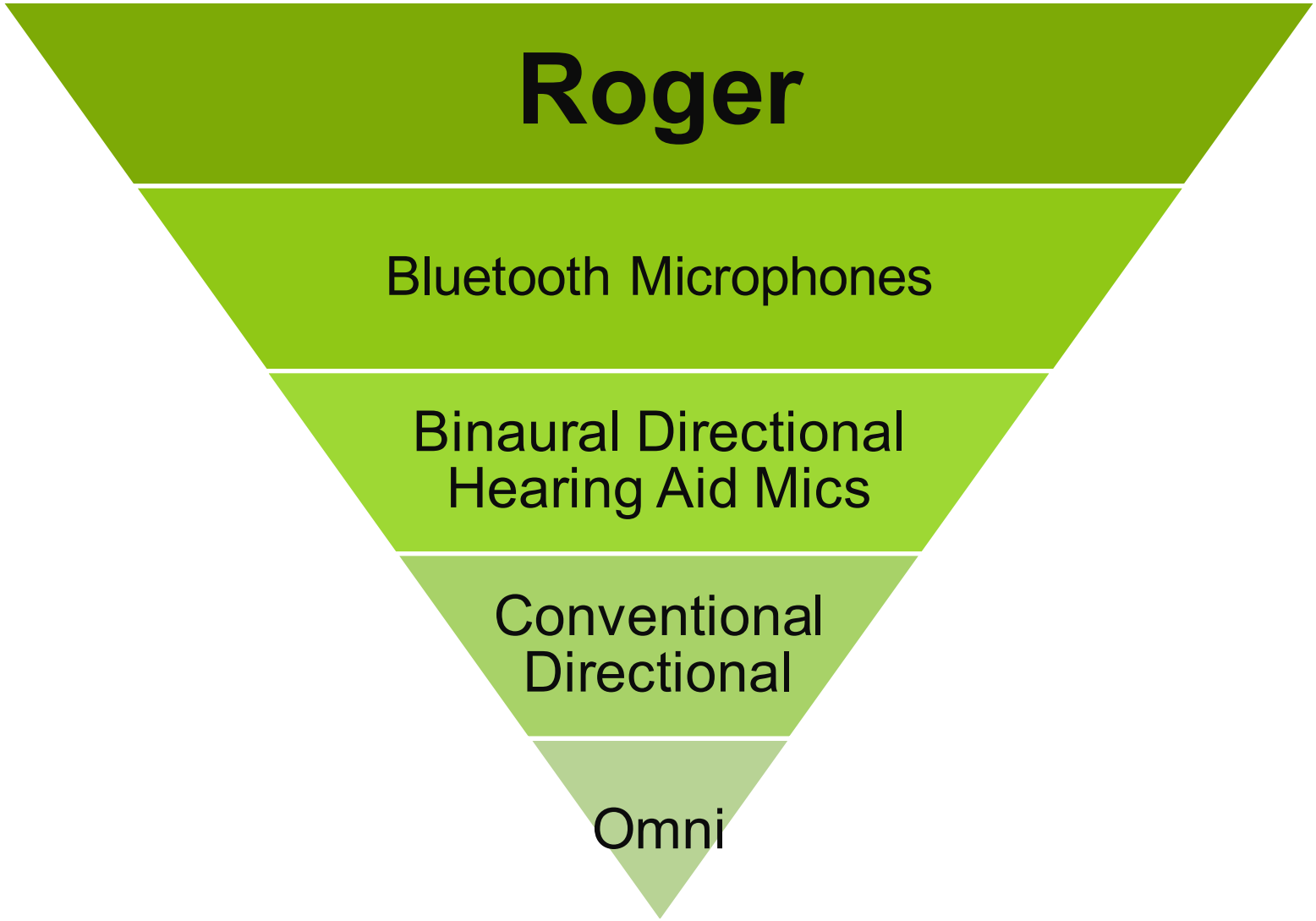
Bluetooth RM vs Adaptive Digital RM

Figure 3. Average performance across the four device conditions and five signal levels. Vertical bars represent 1 *SD*. RM = remote microphone.

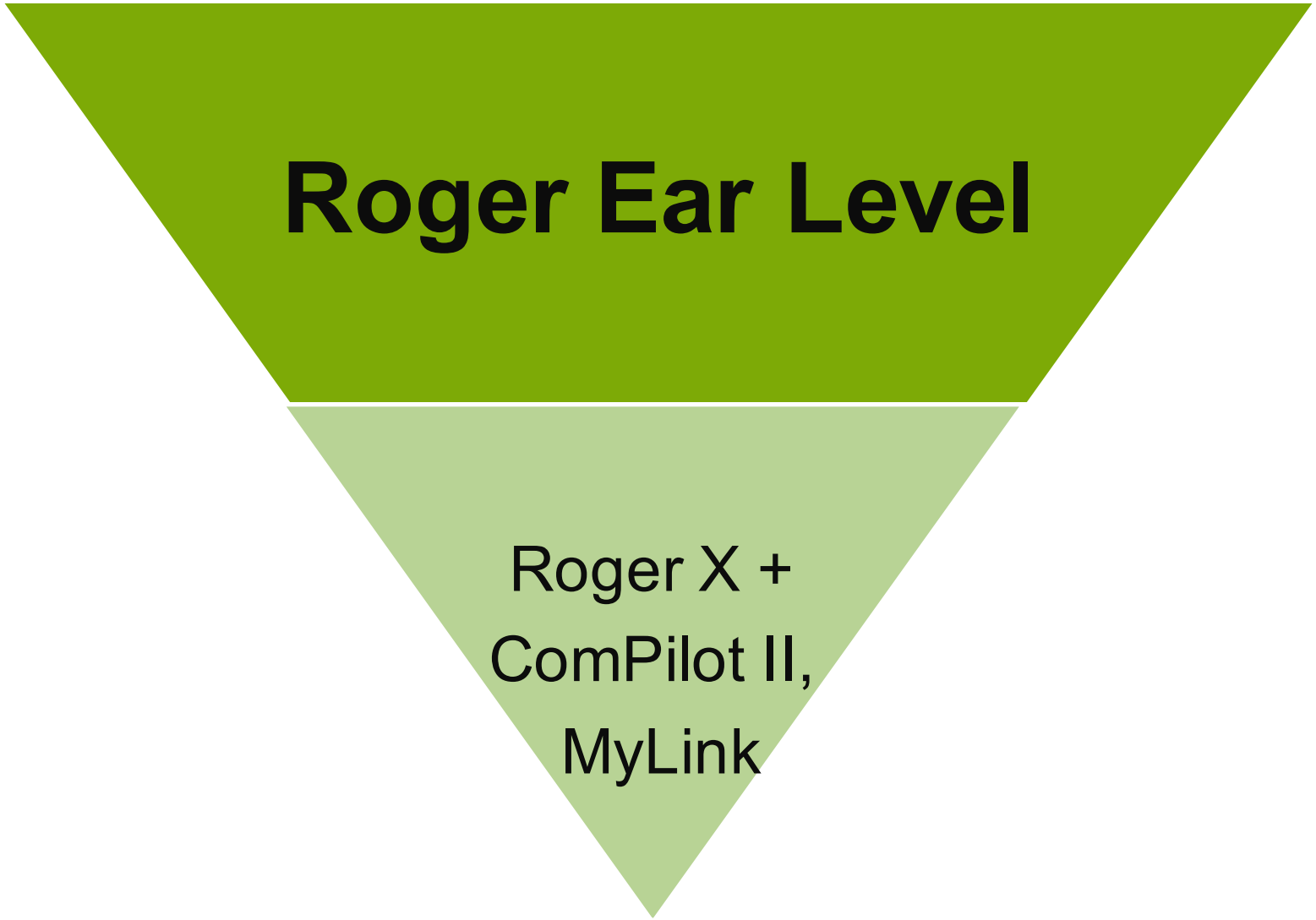


Wolfe, Morais Duke, Schafer, Jones, Mülder, John, & Hudson, Speech Recognition with Remote Microphone Systems, AJA, 2015

Hierarchy of Performance in Noise



Hierarchy of Performance with Roger



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4 Listening Environment Quadrants

Near Field Quiet • One-on-one • Kitchen Table • Living room • Small office • Audiology • Medical	**Near Field Noise** • Car • Restaurant • Bar • Family Dinner • Holiday Party
Far Field Quiet • Board room meeting • Well treated small lecture room • Family member at a distance	**Far Field Noise** • Typical classroom • Conference lecture • Place of Worship • Weddings/funerals

What information do I need to develop my Treatment Plan?

- What information we need to make a treatment plan?
  - Audiometric measurements
  - Site of lesion tests
  - Screening for retro-cochlear pathologies
  - Word identification in quiet
  - ***Speech perception in noise assessment****
    - Patients with good speech perception in quiet but score in Red on LiSN-S PGA make good candidates for Roger and other accessories
  - ***Patient lifestyle/needs assessment****

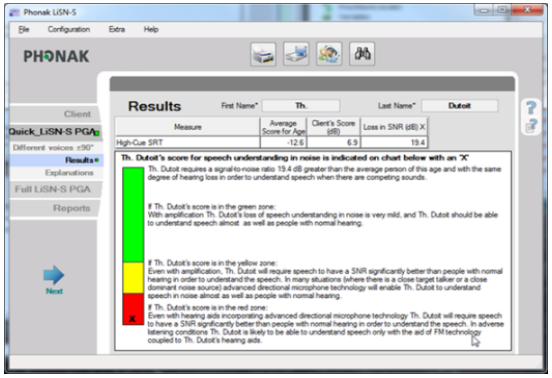
Kathy Pichora-Fuller, PhD

"the presence of background noise or reverberation (room echo) disrupts word identification more for older than younger listeners, even when their audiometric thresholds are considered to be clinically normal (e.g., Dubno et al., 1984; Gordon-Salant and Fitzgibbons, 1993, 1995; Pichora-Fuller et al., 1995; Stuart and

Phillips, 1996; Frisina and Frisina, 1997)."

Trends In Amplification. VOLUME 10, NUMBER 1, 2006. Recent advances in research and clinical practice concerning aging and auditory communication

LiSN-S PGA recommendations



loss (SRT)

loss between 3 dB and 6 dB

loss of 6 dB and above

With amplification the patient's loss of speech understanding in noise is very mild, and the patient should be able to understand speech almost as well as people with normal hearing.

Even with amplification, the patient will require speech to have a SNR significantly better than people with normal hearing in order to understand the speech. In many situations (where there is a close target talker or a close dominant noise source) advanced directional microphone technology will enable the patient to understand speech in noise almost as well as people with normal hearing.

Even with hearing aids incorporating advanced directional microphone technology the patient will require speech to have a SNR significantly better than people with normal hearing in order to understand the speech. In adverse listening conditions the patient is likely to be able to understand speech only with the aid of FM technology coupled to the patient's hearing aids.

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Treatment Planning Guide

Patient Name:_____ Clinician:_____ Date: _____

Pure Tone Audiometry

Right: ☐ Mild ☐ Moderate ☐ Moderate-Severe ☐ Severe ☐ Profound ☐ Word Identification:

Left: ☐ Mild ☐ Moderate ☐ Moderate-Severe ☐ Severe ☐ Profound ☐ Word Identification:

		LISN-S PGA Result	
Goal?	Listening Environment	■ ☐ RED	■ ☐ YELLOW
	Near Field Quiet		
	☐ One-on-one	☐ Omni ☐ SoundRecover ☐ Real Ear Sound	☐ Omni ☐ SoundRecover ☐ Real Ear Sound
	☐ Small group in quiet	☐ Omni ☐ SoundRecover ☐ Real Ear Sound	☐ Omni ☐ SoundRecover ☐ Real Ear Sound
	☐ Music	☐ Omni ☐ Music Program	☐ Omni ☐ Music Program
	☐ Other:		
	Near Field Noise		
	☐ Restaurants	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Café/Coffee Shop	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Automobile	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Car ☐ AutoZoom Control ☐ ZoomControl ☐ Bluetooth Mic
	☐ Noisy Room	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Party	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Bar/Nightclub	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	
	Far Field Quiet		
	☐ Meeting Room	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic
	Far Field Noise		
	☐ Classroom	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	☐ Place of Worship	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	Multiple Talkers		
	☐ Restaurant	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
	☐ Automobile	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
	☐ Meetings	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
	☐ Other:		
	Multimedia		
	☐ Television	☐ Roger ☐ TV Link ☐ Bluetooth Mic	☐ Roger ☐ TV Link ☐ Bluetooth Mic
	☐ Computer	☐ Roger ☐ TV Link ☐ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
	☐ IPad/Tablet	☐ Roger ☐ TV Link ☐ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
	☐ IPod/MP3	☐ Roger ☐ TV Link ☐ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
	☐ Other:		
	Telephone		
	☐ Home	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone
	☐ Office	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone
	☐ Mobile	☐ Roger Pen ☐ EasyCall ☐ ComPilot ☐ ComPilot Air	☐ Roger Pen ☐ EasyCall ☐ ComPilot ☐ ComPilot Air

Comments:

Treatment Planning Guide

Patient Name:_____	Clinician:_____	Date: _____

Pure Tone Audiometry

Right:	☐ Mild ☐ Moderate ☐ Moderate-Severe ☐ Severe ☐ Profound ☐ Word Identification:
Left:	☐ Mild ☐ Moderate ☐ Moderate-Severe ☐ Severe ☐ Profound ☐ Word Identification:

		LISN-S PGA Result	
Goal?	Listening Environment	■ ☐ RED	■ ☐ YELLOW
	Near Field Quiet		
	☐ One-on-one	☐ Omni ☐ SoundRecover ☐ Real Ear Sound	☐ Omni ☐ SoundRecover ☐ Real Ear Sound
	☐ Small group in quiet	☐ Omni ☐ SoundRecover ☐ Real Ear Sound	☐ Omni ☐ SoundRecover ☐ Real Ear Sound
	☐ Music	☐ Omni ☐ Music Program	☐ Omni ☐ Music Program
	☐ Other:		
	Near Field Noise		
	☐ Restaurants	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Café/Coffee Shop	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Automobile	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Car ☐ AutoZoom Control ☐ ZoomControl ☐ Bluetooth Mic
	☐ Noisy Room	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Party	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Bar/Nightclub	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech In Loud Noise ☐ UltraZoom
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	

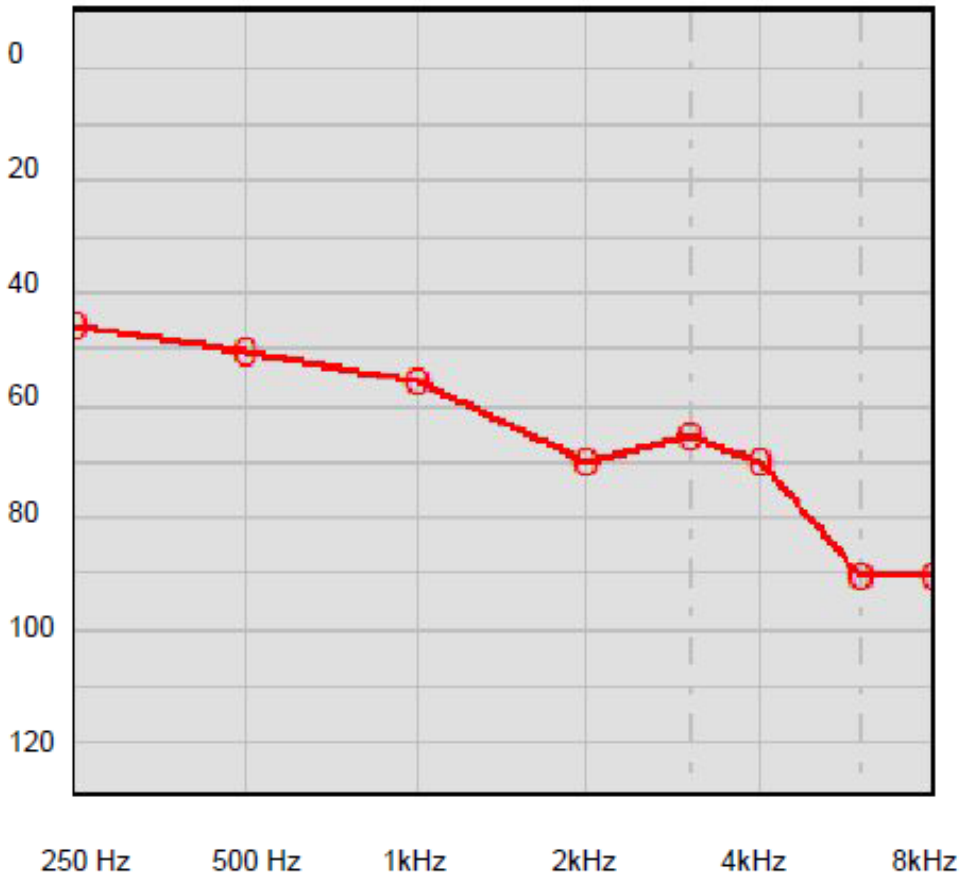
		LISN-S PGA Result	
Goal?	Listening Environment	■ ☐ RED	■ ☐ YELLOW
	Far Field Quiet		
	☐ Meeting Room	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic
	Far Field Noise		
	☐ Classroom	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	☐ Place of Worship	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	Multiple Talkers		
	☐ Restaurant	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
	☐ Automobile	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
	☐ Meetings	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
	☐ Other:		

		LISN-S PGA Result	
Goal?	Listening Environment	■ ☐ RED	■☐ YELLOW
	Multimedia		
	☐ Television	☐ Roger ☐ TV Link ☐ Bluetooth Mic	☐ Roger ☐ TV Link ☐ Bluetooth Mic
	☐ Computer	☐ Roger ☐ TV Link ☐ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
	☐ IPad/Tablet	☐ Roger ☐ TV Link ☐ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
	☐ IPod/MP3	☐ Roger ☐ TV Link ☐ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
	☐ Other:		
	Telephone		
	☐ Home	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone
	☐ Office	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone
	☐ Mobile	☐ Roger Pen ☐ EasyCall ☐ ComPilot ☐ ComPilot Air	☐ Roger Pen ☐ EasyCall ☐ ComPilot ☐ ComPilot Air
Comments:			

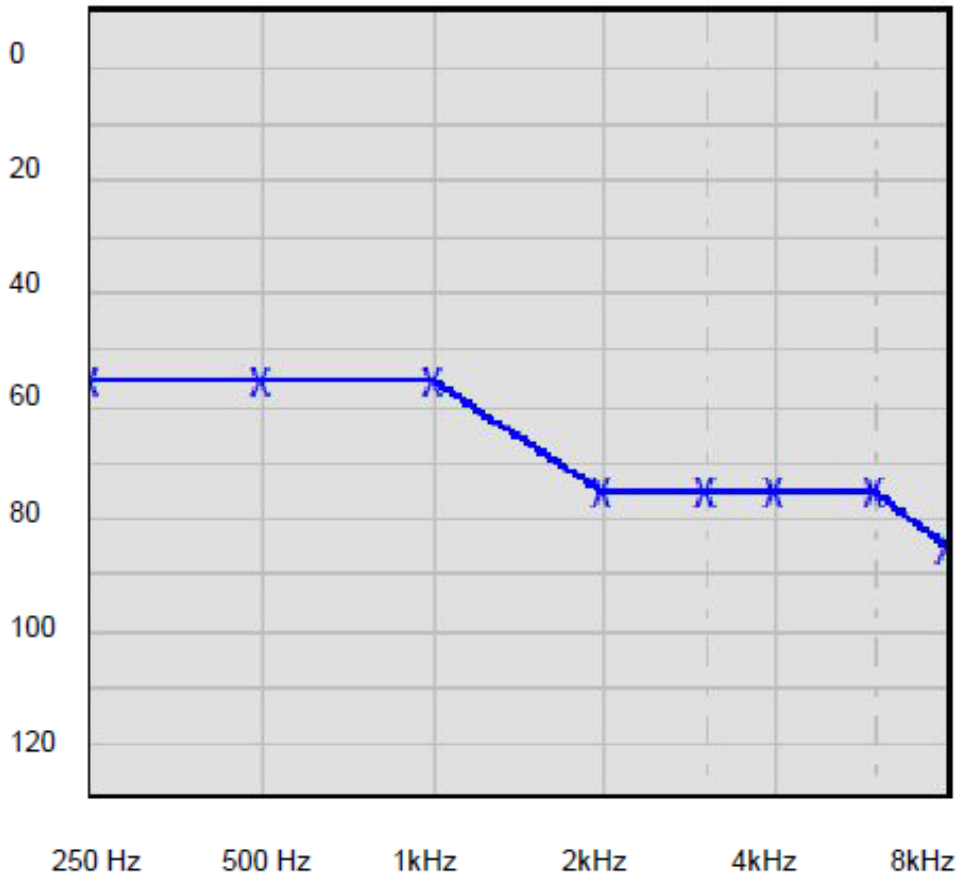
Steps

1. Audiometry
2. Word Identification in quiet
3. LiSN-S PGA (on every client with hearing loss)
4. Determine Listening Environments that client would like to improve communication
5. If Red, introduce Roger concept immediately
6. Fit Hearing Aids
7. 30 day recheck, fine tuning appointments
8. Fit Roger
9. Check outcomes with COSI

Right ear



Left ear



LiSN-S PGA results

Measure	Average score for age	Client's score (dB)	Loss in SNR (dB)
High-Cue SRT	-12.8	-2.9	9.9

score for speech understanding in noise is indicated on chart below with an 'X'

R ' requires a signal-to-noise ratio 9.9 dB greater than the average 60-year old with normal hearing in order to understand speech when there are competing sounds.

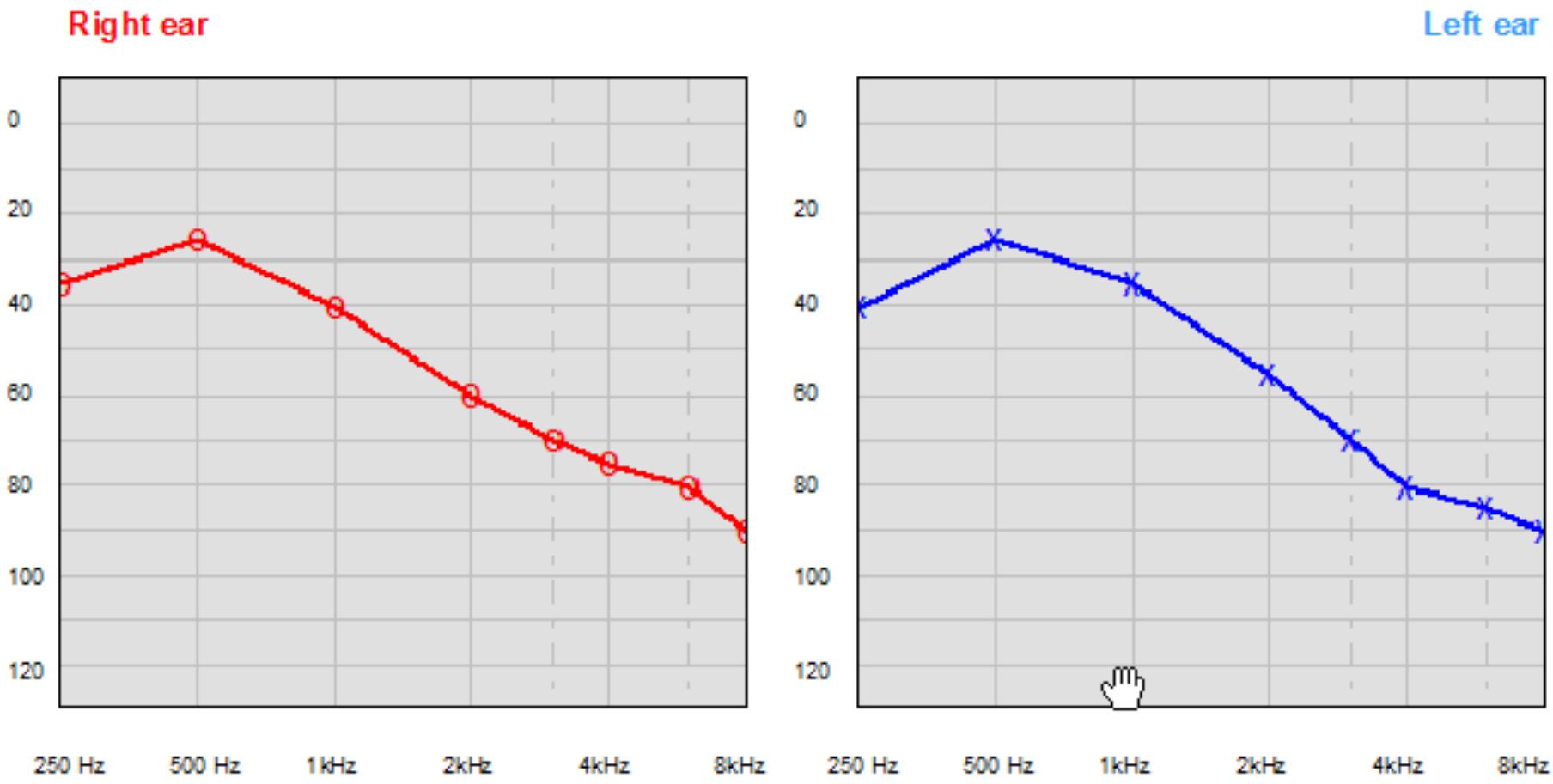
If R score is in the green zone:
With amplification R ' loss of speech understanding in noise is very mild, and R should be able to understand speech almost as well as people with normal hearing.

If R 's score is in the yellow zone: Even with amplification, R will require speech to have a SNR significantly better than people with normal hearing in order to understand the speech. In many situations (where there is a close target talker or a close dominant noise source) advanced adaptive directional microphone technology will enable R to understand speech in noise almost as well as people with normal hearing.

If R score is in the red zone: Even with hearing aids incorporating advanced adaptive directional microphone technology R will require speech to have a SNR significantly better than people with normal hearing in order to understand the speech. In adverse listening conditions R is likely to be able to understand speech only with the aid of Roger technology coupled to R hearing aids.

Treatment Plan

- Audeo 70 V13
- Roger EasyPen
- ***Request for funding to WSIB (Worker Safety Insurance Board) initially rejected. Resubmitted claim with LiSN-S PGA results, and claim was approved.***
- Near Field Noise:
  - Restaurants, Café's, Automobile: Roger EasyPen
- Multiple Talkers:
  - Restaurants: Roger MultiTalker Network
- Multimedia
  - Television: Roger or TV Link
- Telephone:
  - Home: Dect II


Right ear
Left ear
0
20
40
60
80
100
120
250 Hz
500 Hz
1kHz
2kHz
4kHz
8kHz

LiSN-S PGA results

Measure	Average score for age	Client's score (dB)	Loss in SNR (dB)
High-Cue SRT	-12.8	-6.2	6.7

A score for speech understanding in noise is indicated on chart below with an 'X'

A.. requires a signal-to-noise ratio 6.7 dB greater than the average 60-year old with normal hearing in order to understand speech when there are competing sounds.

If Al score is in the green zone:
With amplification. loss of speech understanding in noise is very mild, and. should be able to understand speech almost as well as people with normal hearing.

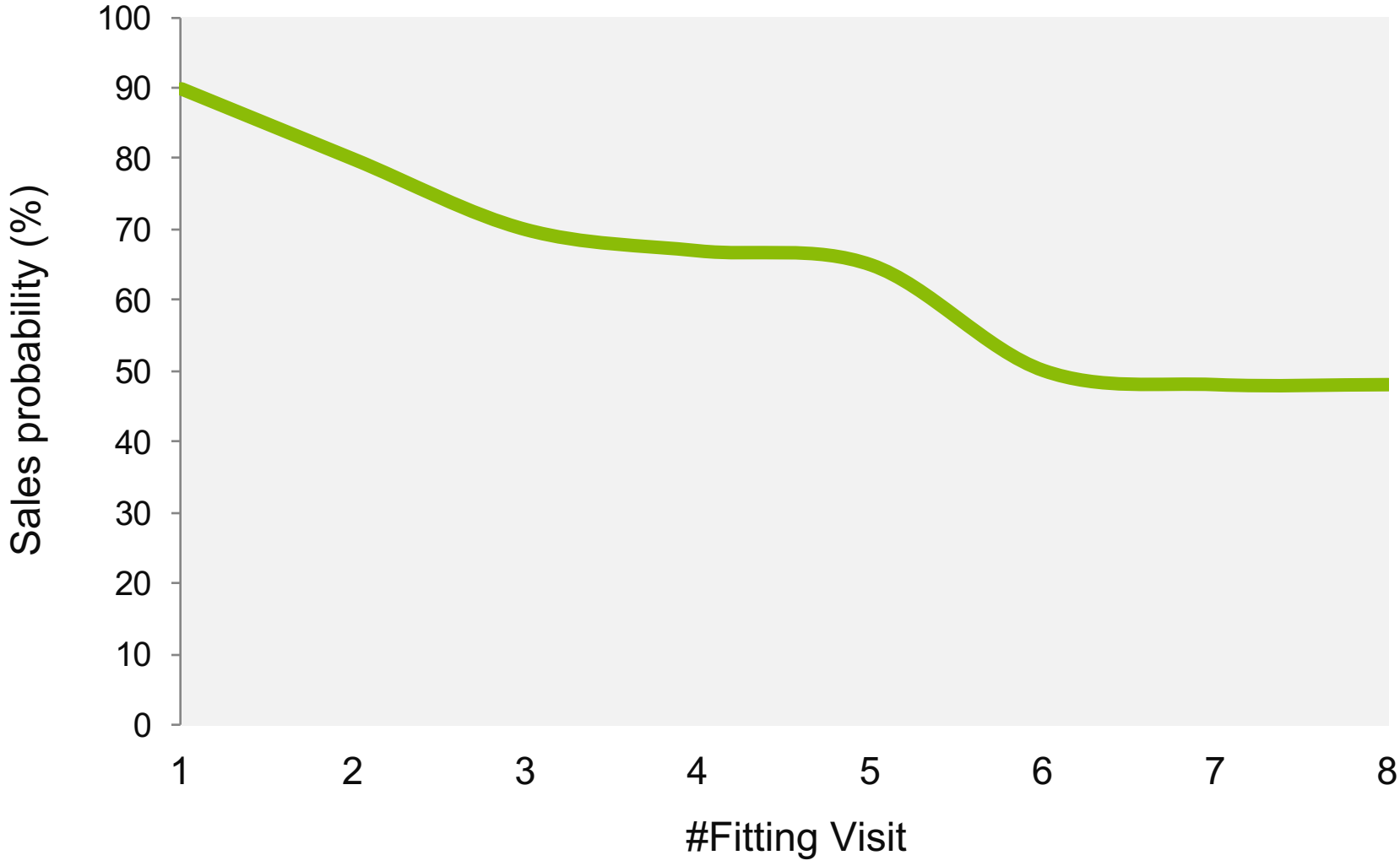
If Al score is in the yellow zone: Even with amplification, A will require speech to have a SNR significantly better than people with normal hearing in order to understand the speech. In many situations (where there is a close target talker or a close dominant noise source) advanced adaptive directional microphone technology will enable to understand speech in noise almost as well as people with normal hearing.

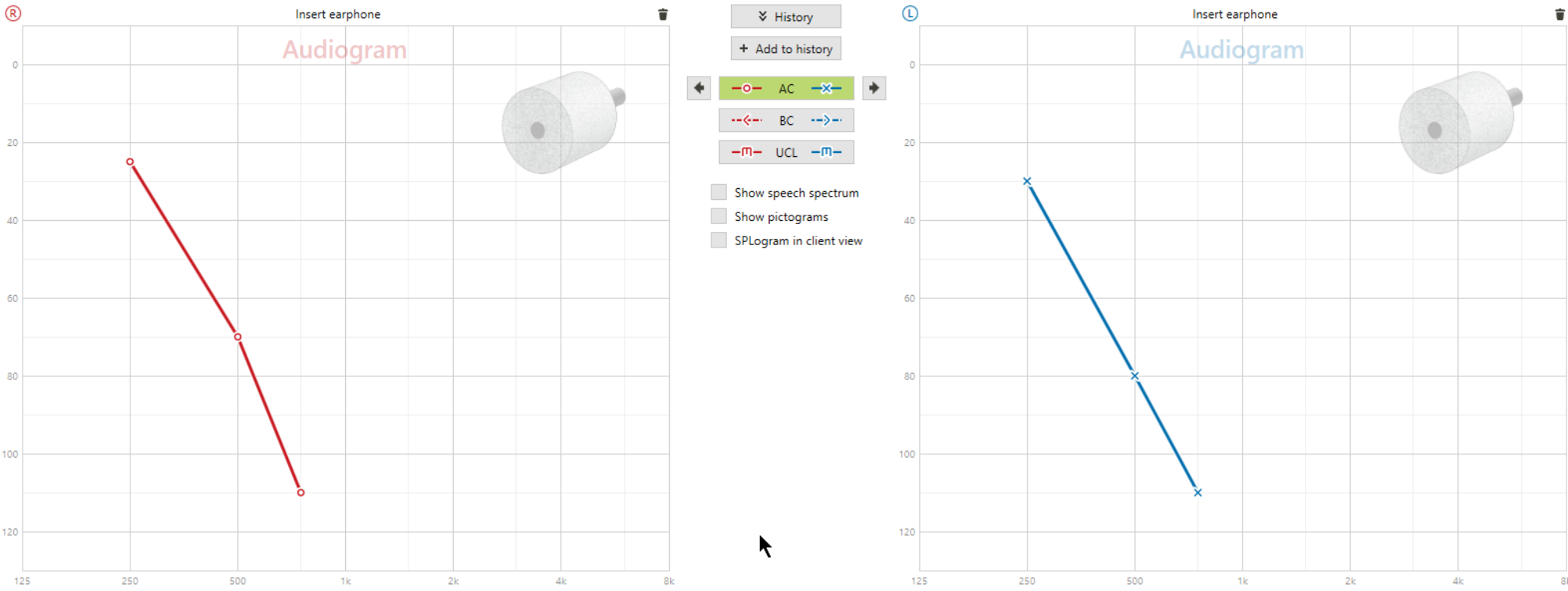
If A. score is in the red zone: Even with hearing aids incorporating advanced adaptive directional microphone technology. will require speech to have a SNR significantly better than people with normal hearing in order to understand the speech. In adverse listening conditions. is likely to be able to understand speech only with the aid of Roger technology coupled to hearing aids.

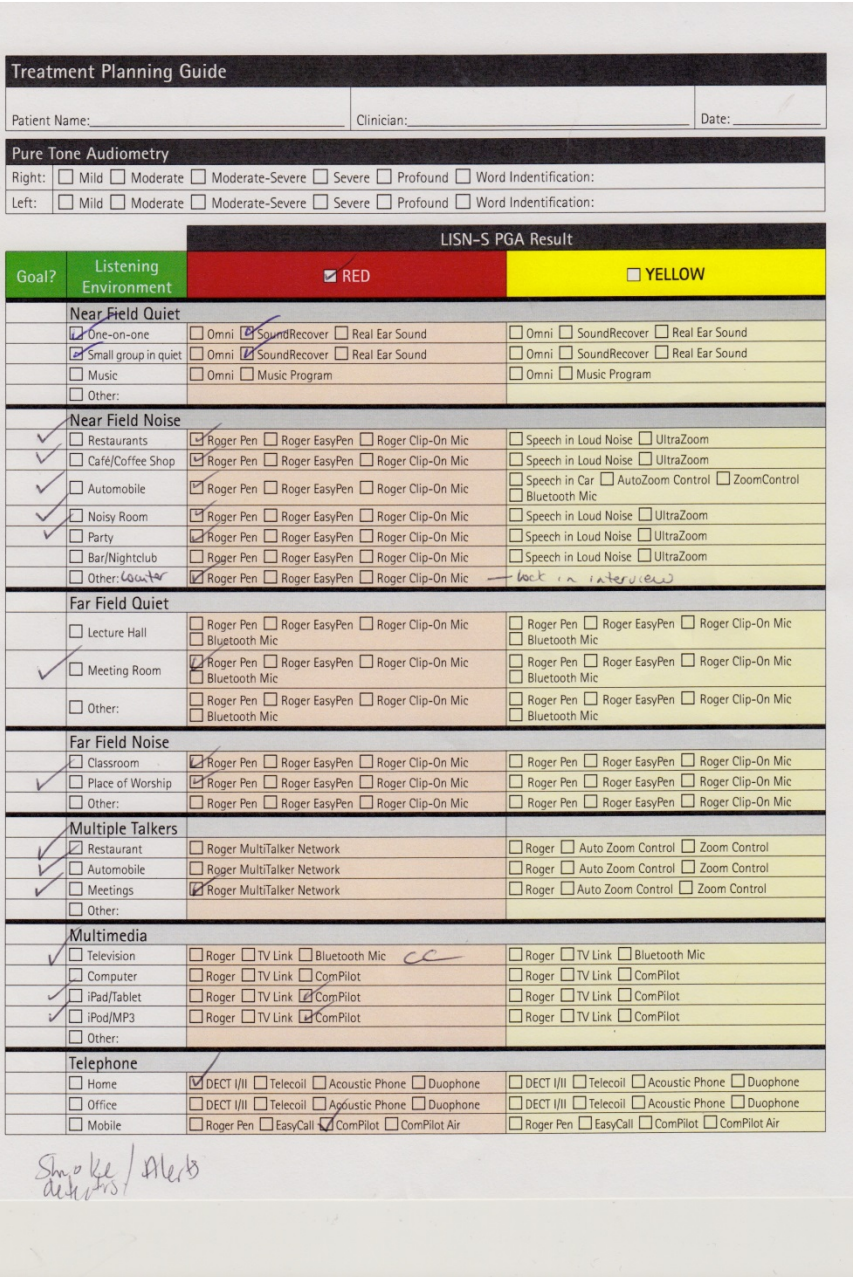
Treatment Plan

- Did not consent to Roger at this time
- ***However, did consent to Audeo 70 V13 over Audeo 70 V 312***
- ***This ensures maximum options should he consent to Roger at a later date***
- Near Field Quiet:
  - One-on-one & Small Group: Omni with Sound Recover
  - Music: Music Program
- Near Field Noise:
  - Restaurants, Café, Noisy Room etc: Speech in Loud Noise
  - Automobile: AutoZoom Control
- Multimedia:
  - Television: TV Link
  - Computer: ComPilot II
- Telephone
  - Home: Dect II
  - Mobile: ComPilot II

When to introduce Treatment Plan: Early!




Insert earphone
Audiogram
0
20
40
60
80
100
120
125
250
500
1k
2k
4k
8k
History
Add to history
AC
BC
UCL
Show speech spectrum
Show pictograms
SPLogram in client view
Insert earphone
Audiogram



Treatment Planning Guide

Patient Name: _____ Clinician: _____ Date: _____

Pure Tone Audiometry

Right: ☐ Mild ☐ Moderate ☐ Moderate-Severe ☐ Severe ☐ Profound ☐ Word Indentification:

Left: ☐ Mild ☐ Moderate ☐ Moderate-Severe ☐ Severe ☐ Profound ☐ Word Indentification:

Goal?	Listening Environment	LISN-S PGA Result: ☑ RED	LISN-S PGA Result: ☐ YELLOW
	Near Field Quiet		
	☑ One-on-one	☐ Omni ☑ SoundRecover ☐ Real Ear Sound	☐ Omni ☐ SoundRecover ☐ Real Ear Sound
	☑ Small group in quiet	☐ Omni ☑ SoundRecover ☐ Real Ear Sound	☐ Omni ☐ SoundRecover ☐ Real Ear Sound
	☐ Music	☐ Omni ☐ Music Program	☐ Omni ☐ Music Program
	☐ Other:		
	Near Field Noise		
✓	☐ Restaurants	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech in Loud Noise ☐ UltraZoom
✓	☐ Café/Coffee Shop	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech in Loud Noise ☐ UltraZoom
✓	☐ Automobile	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech in Car ☐ AutoZoom Control ☐ ZoomControl ☐ Bluetooth Mic
✓	☐ Noisy Room	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech in Loud Noise ☐ UltraZoom
✓	☐ Party	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech in Loud Noise ☐ UltraZoom
	☐ Bar/Nightclub	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Speech in Loud Noise ☐ UltraZoom
	☐ Other: Counter	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	back in interview
	Far Field Quiet		
	☐ Lecture Hall	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic
✓	☐ Meeting Room	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic ☐ Bluetooth Mic
	Far Field Noise		
	☐ Classroom	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
✓	☐ Place of Worship	☑ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	☐ Other:	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic	☐ Roger Pen ☐ Roger EasyPen ☐ Roger Clip-On Mic
	Multiple Talkers		
✓	☑ Restaurant	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
✓	☐ Automobile	☐ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
✓	☐ Meetings	☑ Roger MultiTalker Network	☐ Roger ☐ Auto Zoom Control ☐ Zoom Control
	☐ Other:		
	Multimedia		
✓	☐ Television	☐ Roger ☐ TV Link ☐ Bluetooth Mic cc	☐ Roger ☐ TV Link ☐ Bluetooth Mic
	☐ Computer	☐ Roger ☐ TV Link ☐ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
✓	☐ iPad/Tablet	☐ Roger ☐ TV Link ☑ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
✓	☐ iPod/MP3	☐ Roger ☐ TV Link ☑ ComPilot	☐ Roger ☐ TV Link ☐ ComPilot
	☐ Other:		
	Telephone		
	☐ Home	☑ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone
	☐ Office	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone	☐ DECT I/II ☐ Telecoil ☐ Acoustic Phone ☐ Duophone
	☐ Mobile	☐ Roger Pen ☐ EasyCall ☑ ComPilot ☐ ComPilot Air	☐ Roger Pen ☐ EasyCall ☐ ComPilot ☐ ComPilot Air

Smoke detectors / Alerts

LH Female 45 years old

- 45 Year Old Female
- Mother 4 children
- Progressive loss starting age 18, etiology unknown to patient
- New to clinic, hearing aids fit at another clinic (Bolero SP)
- First referred to Cochlear Implant Clinic 11 years ago and was told not a client
- Currently employed as Customer Service Manager
- Poor word identification scores in quiet
- LiSN-S PGA not performed
- Money is issue…Roger X via ComPilot II

Treatment Plan

- Near Field Quiet:
  - One-on-one & Small Group: Omni with Sound Recover (set to max)
- Near Field Noise:
  - Restaurants, Café, Noisy Room etc: Roger Pen
  - Automobile: Roger Pen
  - Customer Service: Manually lock Roger Pen in “Interview Mode”
- Multimedia:
  - Television: TV Link + Closed Captioning
  - Computer: ComPilot II
- Telephone
  - Home: Dect II
  - Mobile: ComPilot II
- Strongly encouraged to see Cochlear Implant Team again
- Discussed alerting options for including Hearing Ear Dog

THANK YOU