1 PATIENT INFORMATION

1 PATIENT DETAILS

NAME
Walter E. Nakamura

DOB
01/09/1952

AGE / SEX
74 yrs / Male

MRN / PATIENT ID
AU-31776

DATE OF SERVICE
08/11/2026

PROVIDER
Renee C. Bakhtiari, AuD

CREDENTIALS
AuD, CCC-A

PRIMARY CARE PROVIDER
Thomas Oyelaran, MD

VISIT TYPE
Diagnostic re-evaluation with hearing aid check — cochlear implant candidacy assessment

CARE SETTING
Outpatient Audiology Clinic within ENT; same-day otology review

REFERRING PROVIDER
Primary care — asymmetric hearing loss and poor aided benefit

INTERPRETER USED
None required

COMMUNICATION ACCOMMODATIONS USED
Face-to-face seating, clear speech at normal volume, room amplifier via loop, printed visit summary; spouse present as communication partner

CC CHIEF COMPLAINT

2 PRIMARY HEARING CARE CONCERN

"My hearing aids are not enough anymore. My left ear has gone downhill fast this past year, there's a steady ringing on that side, and I can't follow my grandchildren at the dinner table even with both aids in. My wife has to repeat everything."

S SUBJECTIVE

3 PATIENT-REPORTED HEARING, TINNITUS & DEVICE HISTORY

3a REASON FOR EVALUATION & HEARING SYMPTOMS

Reason for Audiology / Hearing Care Evaluation

Diagnostic re-evaluation for progressive, now asymmetric sensorineural hearing loss with poor aided benefit from 7-year-old bilateral hearing aids, new unilateral left non-pulsatile tinnitus, and formal cochlear implant candidacy assessment. Also assessing an asymmetry that has not previously been imaged.

Hearing Symptoms

Bilateral loss known since 1998, historically symmetric and gradually progressive. Over the past 12–14 months the left ear has declined disproportionately — speech on that side is described as "there but scrambled," consistent with distortion rather than reduced volume. Marked difficulty in background noise, on the telephone (left ear now unusable for calls), and with localization — he turns the wrong way when called. Television at volume 42 of 60 with captions on. Intermittent left aural fullness. No true fluctuation and no sudden drop, but the progression is faster than his prior decades-long course.

Onset and Course

Loss first documented on an occupational audiogram in 1998 at age 46, attributed to noise. Gradual bilateral symmetric decline through 2019, when hearing aids were fitted with good initial benefit. Stable until roughly 06/2025, when the left ear began to deteriorate more rapidly, with the left tinnitus appearing at about the same time. No sudden overnight loss, no episodic vertigo with hearing change, no recent infection or head trauma, no barotrauma or diving. He has not had an audiogram since 2023, and no imaging has ever been performed.

Communication Impact

Cannot follow group conversation at family dinners (six to eight people, his stated priority situation and the reason for the visit). Restaurants avoided entirely for two years. Telephone limited to the right ear on speaker. Church attendance reduced — he stopped joining the men's breakfast group because he "couldn't keep up." His wife of 49 years reports repeating most utterances and describes growing frustration on both sides. He has stopped answering the door because he cannot reliably hear the bell.

3b TINNITUS, SOUND TOLERANCE & EAR SYMPTOMS

Tinnitus Symptoms

Left ear only, constant high-pitched ringing, present roughly 14 months, non-pulsatile. Loudness 6/10, annoyance 5/10. Most intrusive in quiet, delaying sleep onset by 30–45 minutes several nights weekly. Mild concentration interference while reading. No prior tinnitus management. He specifically denies any pulsatile or heartbeat-synchronous quality on repeated questioning — asked directly because of the unilateral presentation. No tinnitus on the right.

Sound Sensitivity

No hyperacusis or misophonia. Loud sounds are uncomfortable only at high hearing-aid volume settings, which is a device-gain issue rather than a tolerance disorder. No avoidance behaviors driven by sound intolerance. Loudness discomfort levels measured today (see testing).

Ear Symptoms

No otalgia. No otorrhea, past or present. Intermittent left aural fullness without pressure change or popping. Occasional itching in both canals from dome contact. Cerumen accumulation has required removal twice yearly for a decade; last removal 02/2026. No history of tympanostomy tubes, perforation, ear surgery, or cholesteatoma. No recurrent childhood otitis media. No autophony or eustachian tube symptoms.

Vestibular / Balance Symptoms

No vertigo, no episodic spinning, no positional symptoms, no oscillopsia. Reports mild unsteadiness in the dark and on uneven ground for about 2 years, without falls in the past year — one non-injurious fall on ice in 2024. No motion sensitivity. No migraine. No aural fullness plus vertigo plus fluctuating hearing pattern that would suggest Ménière disease. Uses a cane outdoors by preference, not necessity.

3c EXPOSURE, MEDICAL & DEVICE HISTORY

Noise Exposure History

Substantial and cumulative. US Navy machinist mate 1970–1978, engine room, with hearing protection described as "plugs when we remembered." Then 31 years in a commercial printing plant (1979–2010), press floor, with plugs mandated only from the mid-1990s onward and worn inconsistently before that. Recreational: deer hunting with rifle and shotgun since

his twenties, historically without protection, now with electronic muffs. Lawn and shop tools with muffs. No firearms use in the past 3 years. Annual occupational audiograms 1994–2010 documented a progressive bilateral high-frequency notch.

Medical / Otologic History

Type 2 diabetes since 2009, HbA1c 7.1%, on metformin and empagliflozin — relevant as a cofactor in cochlear and neural decline. Hypertension on amlodipine. Coronary artery disease with drug-eluting stent 2018, on aspirin 81 mg. Mild chronic kidney disease, eGFR 58. No otosclerosis, no Ménière disease, no vestibular migraine, no autoimmune disease, no meningitis, no significant head trauma, no chemotherapy or head-and-neck radiation. Cataract surgery bilaterally 2021 — vision corrected to 20/25, which matters for lip reading and for device handling.

Medication / Ototoxic Exposure History

No aminoglycosides, no platinum chemotherapy, no antimalarials. Furosemide 20 mg daily for 4 months in 2018 during post-stent volume management — brief, low-dose, and temporally unrelated to the current decline. Aspirin 81 mg is well below salicylate-ototoxic dosing. No supplements with ototoxic potential. Medication list reviewed against an ototoxicity reference today.

Family History

Mother wore a hearing aid from her seventies (presbycusis pattern, no known genetic diagnosis). Father had no known hearing loss. No otosclerosis, no early-onset or childhood hearing loss, no known syndromic or genetic hearing conditions, no cochlear implant use, no familial balance disorder.

Prior Hearing Testing / Treatment

Occupational audiograms 1994–2010. Clinical audiograms 2012, 2016, 2019 (at fitting), and 2023 — all obtained and trended below. Tympanometry 2019 normal. No prior OAEs, no ABR, no vestibular testing, and **no prior imaging of the internal auditory canals**. ENT evaluation 2019 for candidacy only. Never evaluated for cochlear implantation. No assistive listening devices beyond the aids — no remote microphone, no telecoil use (he was unaware his aids include telecoils).

Hearing Aid / Device History

Bilateral receiver-in-canal aids, mid-level technology, fitted 07/2019 — now 85 months old and beyond both warranty and expected service life. Worn 11–12 hours daily by data log. Benefit rated 3 of 10 currently, down from 8 of 10 at fitting. Persistent problems: left-side feedback when chewing, left-side sound described as “buzzy and unclear” regardless of volume, and no usable telephone function. Domes replaced by the patient every few months; wax guards changed inconsistently. One right receiver replacement in 2022. Rechargeable batteries now hold roughly 6 hours, insufficient for his wear time. Bluetooth pairing lost repeatedly after a phone upgrade and never restored. Goal in his words: “hear my family at the table again.”

Pediatric / School Context

Not applicable — adult patient.

Pertinent Negatives

Denies sudden hearing loss and any single-event drop. No pulsatile tinnitus (asked directly and repeatedly). No severe vertigo, no facial weakness or asymmetry, no facial numbness, no diplopia, no dysphagia or dysarthria, no gait ataxia. No otalgia or otorrhea. No head trauma. No fever or systemic illness. No rapid deterioration over days to weeks.

ROS AUDIOLOGY & HEARING CARE REVIEW OF SYSTEMS

4 PERTINENT POSITIVES & NEGATIVES

Hearing	**Positive: bilateral loss with disproportionate left decline over 14 months, distorted speech clarity, background-noise and phone difficulty, poor localization, intermittent left fullness. Negative for sudden loss and true fluctuation.**
[illegible]	[illegible]

Tinnitus and sound tolerance	Positive: constant left-only high-pitched non-pulsatile tinnitus, 6/10 loudness, sleep-onset interference. Negative for pulsatile tinnitus, hyperacusis, misophonia.
Ear symptoms	Positive: recurrent cerumen, dome-related canal itching, intermittent left fullness. Negative for otalgia, otorrhea, perforation, prior ear surgery.
Vestibular	Positive: mild unsteadiness in the dark and on uneven ground for 2 years, one non-injurious fall in 2024. Negative for vertigo, positional symptoms, oscillopsia, falls in the past year.
Neurologic	Negative for facial weakness or numbness, diplopia, dysarthria, dysphagia, ataxia, and headache.
Exposure	Positive: Navy engine room, 31 years press floor, unprotected firearm use historically; diabetes as a cofactor. Negative for ototoxic drug exposure at ototoxic dose.
Device issues	Positive: 85-month-old aids, left feedback and distortion, 6-hour battery, no Bluetooth or telecoil use, benefit fallen from 8/10 to 3/10. Negative for retention failure and for discomfort at rest.
Communication and psychosocial	Positive: withdrawal from restaurants and church group, spouse repetition burden, doorbell and alarm concerns. Negative for depressed mood on screening and for suicidal ideation.

O OBJECTIVE

5 OBSERVED FINDINGS

V VITALS

TEMPERATURE	BLOOD PRESSURE
98.1 °F	134/76 mmHg
HEART RATE	RESPIRATORY RATE
68 bpm, regular	14/min
OXYGEN SATURATION	PAIN SCORE
97% on room air	0/10 — no otalgia

5a OBSERVATION & OTOSCOPY

General Appearance

Alert, neatly dressed, no distress. Ambulates with a cane, steady gait indoors. Speech production normal in articulation with slightly elevated vocal intensity. Wearing both hearing aids on arrival. Watches the speaker's face closely throughout — visible reliance on visual cues.

Communication Observation

Required repetition of approximately 1 in 4 utterances at conversational level with aids in place, and 1 in 2 when the examiner turned toward the computer. Responded reliably when facing the speaker with the room loop engaged. Clear reliance on lip reading. Spouse frequently rephrased on his behalf; she was coached to allow him to respond first. No

interpreter needed. Printed summary requested and provided.

Otoscopy

Right: canal patent after removal of moderate cerumen at the lateral canal (curette and suction, well tolerated); tympanic membrane intact, translucent, normal landmarks, mobile on pneumatic otoscopy, no effusion or retraction. Left: mild diffuse canal erythema at the dome contact point without discharge; tympanic membrane intact with mild tympanosclerotic plaque anteroinferiorly, no perforation, no retraction, no effusion, mobile. No ventilation tubes. No masses. Visualization complete bilaterally after cerumen management.

External Ear

Pinnae normal in size and position, no preauricular pits or tags, no surgical scars. Mild pressure erythema at the left concha from the receiver wire, blanching and non-tender, no skin breakdown. No mastoid tenderness or postauricular swelling. No lesions of concern on either helix — actinic changes noted and photo-protection advised.

Neurologic / Vestibular Observation

Gait steady on level floor with cane, mildly wide-based. Tandem gait 4 of 10 steps. Romberg negative on firm surface, positive on foam — consistent with age-related sensory reweighting. No spontaneous or gaze-evoked nystagmus with Frenzel lenses. Head impulse test grossly normal bilaterally. Facial symmetry intact, no facial weakness. Cranial nerves V and VII grossly intact — specifically examined given the asymmetric loss. Timed Up and Go 13.5 seconds — borderline elevated fall risk.

Hearing Device Inspection

Both devices listened to with a stethoset. Right: functioning, output clear, receiver intact, wax guard partially occluded (replaced), dome intact and correctly sized. Left: intermittent output with audible distortion; receiver corroded at the wire junction and wax guard fully occluded — guard replaced and receiver flagged as failing. Microphone ports on both devices clogged with debris (cleaned). Charging contacts oxidized (cleaned). Data log: right 11.8 h/day, left 11.2 h/day average over 30 days; streaming 0 hours — consistent with the unpaired Bluetooth. Physical shells worn but intact; retention adequate. Warranty expired 07/2022; manufacturer no longer supports firmware for this model.

AU AUDIOLOGIC TESTING

6 TESTS PERFORMED, RELIABILITY & RESULTS

Pure Tone Audiometry

Insert earphones, appropriate masking applied throughout; reliability good with consistent responses. **Right:** 30, 35, 45, 60, 70, 75 dB HL at 250, 500, 1k, 2k, 4k, 8k Hz — four-frequency PTA 43 dB HL, moderate sloping to severe sensorineural loss. **Left:** 40, 50, 65, 80, 90, 95 dB HL at the same frequencies — four-frequency PTA 63 dB HL, moderately severe sloping to profound sensorineural loss. Bone conduction thresholds within 5 dB of air at all frequencies bilaterally with no air-bone gap — purely sensorineural, no conductive component. **Interaural asymmetry 20 dB at the four-frequency PTA and 20 dB at 4 kHz**, exceeding the 15 dB threshold prompting imaging. Compared with 2023: right unchanged within test-retest variability (2 dB), left worsened by 18 dB at the PTA and 25 dB at 4 kHz — documented progressive asymmetry.

Speech Audiometry

Right: SRT 40 dB HL, consistent with PTA. NU-6 word recognition 72% at 75 dB HL (25 dB SL). **Left:** SRT 65 dB HL. NU-6 word recognition 44% at 95 dB HL, with rollover ruled out at higher presentation levels (no decrease at 105 dB HL). Contralateral masking used. AzBio sentences in quiet, best-aided binaural condition: **52% correct**; AzBio +10 dB SNR best-aided: **28% correct**. Left ear alone, aided: 31% in quiet. The disproportionately poor left word recognition relative to threshold indicates retrocochlear or neural involvement beyond what the audiogram predicts.

Tympanometry

Right: ear canal volume 1.3 mL, static compliance 0.7 mL, peak pressure −15 daPa — type A, normal. Left: ear canal volume 1.4 mL, static compliance 0.5 mL, peak pressure −25 daPa — type A, within normal limits with slightly reduced compliance attributable to tympanosclerosis. Normal middle ear function bilaterally; no effusion or eustachian tube dysfunction to

explain the left fullness.

Acoustic Reflexes

Ipsilateral reflexes present at elevated levels on the right (95–100 dB HL at 500 Hz and 1 kHz), absent at 2 kHz. Left ipsilateral reflexes absent at all frequencies. Contralateral reflexes absent bilaterally. Reflex decay: not testable on the left given absent reflexes; negative on the right at 500 Hz. The absent left reflexes with absent contralateral responses are consistent with severe-to-profound loss but do not exclude a retrocochlear lesion — a further reason for imaging.

Otoacoustic Emissions

DPOAEs absent bilaterally from 1 to 8 kHz with adequate stimulus levels and good probe fit (noise floor acceptable). Consistent with widespread outer hair cell loss on both sides — expected given the degree of sensorineural loss and does not localize the asymmetry.

Auditory Brainstem Response

Not performed today. MRI of the internal auditory canals is the preferred investigation for asymmetric sensorineural loss and has been ordered; ABR would be reserved if MRI cannot be obtained (no contraindication identified — his 2018 stent is MRI-compatible and confirmed with cardiology records).

Vestibular Testing

Not performed and not currently indicated — no vertigo, no nystagmus, normal head impulse testing. Balance concerns are consistent with age-related multisensory decline plus diabetic peripheral neuropathy risk; addressed through fall prevention rather than vestibular workup. Would be reconsidered if imaging reveals a retrocochlear lesion or if vertigo develops.

Screening Results

Not applicable — full diagnostic evaluation performed rather than screening. Loudness discomfort levels: right 105 dB HL, left 108 dB HL — adequate dynamic range for amplification on the right, narrow on the left.

HA HEARING AID / DEVICE ASSESSMENT

7 HEARING TECHNOLOGY EVALUATION & MANAGEMENT

Device type, manufacturer, model, serial	**Bilateral receiver-in-canal, mid-tier 2019 platform; serials recorded in the device record. 85 months in service.**
Warranty status, repair history, device age	**Warranty expired 07/2022. One right receiver replacement (2022). Model out of firmware support. Age exceeds typical 5-year service life.**
Current settings and programs	**Two programs (universal, restaurant); restaurant program never used — he did not know it existed. Gain limited by 2019 fitting targets, not updated to current thresholds.**
Data logging and daily use	**Right 11.8 h/day, left 11.2 h/day over 30 days — excellent adherence. Streaming 0 hours (Bluetooth unpaired since a 2024 phone upgrade).**
Real-ear verification	**Real-ear aided response measured with speech-mapping. Right: within 5 dB of DSL v5.0 adult targets at 500 Hz and 1 kHz, 12 dB under target at 2 and 4 kHz. Left: 18–22 dB under target at 2 and 4 kHz, with output limited by feedback before target could be reached. The left ear is not achieving audibility even with optimal programming — a device-capability limit, not a fitting error.**
Feedback test results	**Feedback margin inadequate on the left with open dome**

	at required gain; feedback provoked reproducibly during chewing simulation. Would require a closed custom mold to gain headroom.
Earmold or dome fit and comfort	Open domes bilaterally — inappropriate for the current degree of loss. Left concha shows pressure erythema. Custom molds indicated if amplification continues.
Sound quality concerns	Left described as "buzzy and unclear" regardless of setting — corroborated by the failing left receiver and by the 44% word recognition ceiling. Right sound quality acceptable after cleaning.
Bluetooth / connectivity status	Non-functional since 2024. Telecoils present but never activated; patient unaware. Room loop trial today produced immediate and marked subjective improvement.
Battery or charging function	Rechargeable cells degraded to roughly 6 hours against 11–12 hours of daily wear — the batteries are not replaceable on this model.
Cleaning and maintenance performed	Both microphone ports cleaned, both wax guards replaced, charging contacts cleaned, domes replaced with correctly sized units, right receiver verified.
Programming changes made	Right reprogrammed to current 2026 thresholds and verified to within 5 dB of target at 2 and 4 kHz. Telecoil and a dedicated telephone program activated bilaterally. Restaurant program demonstrated with the patient and his wife. Left gain increased to the feedback limit — still under target.
Patient-reported benefit after adjustment	Immediate improvement on the right ("sharper, less muffled") and with the loop. No meaningful change on the left. Aided AzBio in quiet retested after adjustment: 52% to 58% — improved but well below the level needed for conversational function, and below the cochlear implant candidacy threshold.
Counseling provided	Device lifespan and non-repairability of the left receiver on an unsupported platform, realistic ceiling of amplification for a 44%-word-recognition ear, telecoil and remote microphone options, custom mold rationale, daily cleaning routine demonstrated to both patient and spouse, and the distinction between audibility and clarity.

TN TINNITUS / SOUND SENSITIVITY ASSESSMENT

8 TINNITUS & SOUND TOLERANCE FINDINGS

Laterality and character	Left ear only; constant high-pitched ringing, pitch-matched to approximately 6 kHz, loudness match 8 dB SL.
Pulsatile versus non-pulsatile	Non-pulsatile — confirmed on direct repeated questioning. No bruit on auscultation of the neck, periauricular region, or orbit.
Severity and distress level	Loudness 6/10, annoyance 5/10. Tinnitus Handicap Inventory 34 of 100 — mild-to-moderate handicap.

Sleep, concentration, mood, quality of life	**Sleep-onset delay of 30–45 minutes several nights weekly; mild reading interference. No depressed mood on screening (PHQ-2 negative). No catastrophic beliefs about the tinnitus.**
Associated hearing loss or vestibular symptoms	**Co-localizes with the worse-hearing, faster-declining left ear. No associated vertigo or episodic fullness-vertigo-hearing pattern.**
Sound sensitivity triggers and avoidance	**None — no hyperacusis or misophonia; loudness discomfort levels adequate (right 105, left 108 dB HL). No sound-driven avoidance.**
Prior treatment attempts	**None. No prior education, sound therapy, or masking. Had assumed nothing could be done.**
Scores used	**Tinnitus Handicap Inventory 34; loudness and annoyance numeric ratings as above. Baseline established for comparison.**
Counseling provided	**Explained the mechanism in plain terms, the strong association with his hearing loss and noise history, and that unilateral tinnitus with asymmetric loss warrants imaging — already ordered. Reviewed bedside sound enrichment (fan or low-level broadband sound), avoidance of total silence, restored amplification and telecoil use as first-line management, and sleep-hygiene measures. Reassured about the absence of pulsatile features. Cognitive behavioral therapy discussed as an option if handicap rises.**

FH FUNCTIONAL HEARING / COMMUNICATION ASSESSMENT

9 REAL-WORLD HEARING FUNCTION & COMMUNICATION NEEDS

Greatest difficulty situations	**Family dinner table with six to eight speakers (his top priority), restaurants, church hall, telephone on the left, and car conversation with road noise.**
Work, school, family, social impact	**Retired. Family impact substantial — withdrawal from group meals and from the church breakfast group; spouse carries a heavy repetition burden and reports mutual frustration.**
Phone and video call difficulty	**Left ear unusable for calls; right ear only on speaker. No video-call captioning in use. Dedicated telephone program and telecoil activated today.**
Background noise difficulty	**Severe — aided AzBio at +10 dB SNR only 28% correct, which quantifies what he describes.**
Safety concerns	**Cannot reliably hear the doorbell; uncertain about the smoke alarm; missed a reversing-vehicle alert in a parking lot in 05/2026. Timed Up and Go 13.5 seconds with one fall in 2024 — combined hearing and balance fall risk.**
Communication partner concerns	**Spouse present and engaged; reports repeating most utterances and speaking loudly for years. Counseled directly and included in all education.**

Assistive listening device needs	**Remote microphone strongly indicated for the dinner-table goal. Telecoil now active for looped venues. Bed-shaker and strobe smoke alarm recommended; amplified or captioned telephone recommended.**
Captioning and accommodations	**Captioned telephone service application provided. Television captions already in use. Church advised to be asked about an assistive listening system — a loop is present but unadvertised.**
Patient goals and priorities	**Stated verbatim: (1) "hear my family at the table again," (2) use the telephone with either ear, (3) reduce the left-side ringing at night, (4) stop making his wife repeat herself.**

ST SCREENING / ASSESSMENT TOOLS

10 STANDARDIZED TOOLS & INTERPRETATION

Hearing Handicap Inventory for the Elderly	**30 of 40 — significant self-perceived handicap (prior 2023: 18 of 40). Marked worsening consistent with the left-ear decline.**
Tinnitus Handicap Inventory	**34 of 100 — mild-to-moderate. First administration; baseline for tracking.**
Tinnitus Functional Index	**36 — corroborates mild-to-moderate impact, sleep subscale highest.**
Client-Oriented Scale of Improvement	**Four goals recorded verbatim (above) for re-rating at the next visit.**
Speech-in-noise testing	**AzBio +10 dB SNR best-aided 28% correct; QuickSIN SNR loss 14 dB (severe) on the right, not measurable on the left.**
Dizziness Handicap Inventory	**16 of 100 — mild. Consistent with mild age-related unsteadiness rather than a vestibular disorder.**
Pediatric questionnaires	**Not applicable.**
Device satisfaction questionnaire	**IOI-HA total 14 of 35 — low satisfaction, with the lowest scores on benefit in difficult situations and on residual participation restriction.**
Communication needs assessment	**Completed with the spouse present; dinner-table listening identified as the single highest-value target, directly informing the remote-microphone recommendation.**

L LABORATORY AND DIAGNOSTIC RESULTS

11 RESULTS REVIEWED OR ORDERED

Audiologic Results

Full diagnostic battery today as documented above: pure tone air and bone with masking, speech audiometry with AzBio

sentences in quiet and in noise, tympanometry, acoustic reflexes, DPOAEs, real-ear verification, and loudness discomfort levels. Prior audiograms 2012, 2016, 2019, and 2023 retrieved and trended; occupational audiograms 1994–2010 obtained from the printing plant's occupational health vendor.

ENT / Medical Records

Otoscopy documented above with cerumen management performed. ENT note 2019 reviewed (candidacy deferred at that time on the basis of adequate aided benefit). No operative reports — no prior ear surgery. Cerumen management notes 2016–2026 confirming twice-yearly need.

Imaging

MRI internal auditory canals with and without gadolinium ordered today for 20 dB interaural asymmetry, unilateral non-pulsatile tinnitus, absent left acoustic reflexes, and left word recognition disproportionately poor for threshold — to evaluate for vestibular schwannoma or other retrocochlear pathology. eGFR 58 confirmed acceptable for gadolinium with the radiology protocol; 2018 drug-eluting stent confirmed MRI-compatible. CT temporal bones deferred unless implantation proceeds, at which point it will be obtained for cochlear anatomy and patency.

Medication / Exposure Records

Full medication list reviewed against an ototoxicity reference — only a brief 2018 low-dose furosemide course, temporally unrelated. Occupational noise exposure documentation obtained from the employer's occupational health file, including the 1994–2010 audiogram series showing progressive high-frequency notching. Military service noise exposure documented by history; VA claim documentation discussed.

Prior Records Reviewed

Audiograms 1994–2023, hearing aid fitting and repair records 2019–2026 including the 2022 receiver replacement, 2019 ENT consultation, primary care notes with diabetes and renal trends (HbA1c 7.1%, eGFR 58), cardiology records confirming stent MRI compatibility, and pharmacy medication history.

A ASSESSMENT

12 AUDIOLOGY & HEARING CARE CLINICAL INTERPRETATION

- **Bilateral sensorineural hearing loss, asymmetric and progressive** — right moderate sloping to severe (PTA 43 dB HL, word recognition 72%); left moderately severe sloping to profound (PTA 63 dB HL, word recognition 44%). No air-bone gap and normal tympanograms bilaterally: no conductive component and no middle ear disease to explain the left fullness.
- **Etiology is multifactorial:** long-standing noise-induced loss (Navy engine room, 31 years on a press floor, unprotected firearms) with a documented high-frequency notch on serial occupational audiograms, superimposed presbycusis, and type 2 diabetes as a recognized cofactor in cochlear and neural decline. Ototoxic exposure effectively excluded.
- **The left-ear asymmetry is the principal new finding and requires imaging.** Twenty decibels of interaural PTA difference, an 18 dB PTA and 25 dB high-frequency decline since 2023, unilateral non-pulsatile tinnitus of the same duration, absent left acoustic reflexes, and word recognition of 44% that is disproportionately poor for the threshold together raise concern for retrocochlear pathology, including vestibular schwannoma. MRI of the internal auditory canals is indicated and has been ordered; a noise-plus-presbycusis explanation alone does not account for asymmetric acceleration.
- **Middle ear status is normal** — no medical referral needed for conductive pathology, though otology review is already in place for the asymmetry and imaging.
- **Functional communication impact is severe and exceeds what the audiogram alone conveys:** aided AzBio 52% in quiet and 28% at +10 dB SNR, HHIE 30 of 40 (up from 18 in 2023), QuickSIN SNR loss 14 dB, IOI-HA 14 of 35. He has withdrawn from restaurants, group meals, and his church group, and his spouse carries a substantial repetition burden.

- **Left tinnitus, mild-to-moderate handicap** (THI 34, TFI 36), non-pulsatile, co-localizing with the worse ear and temporally linked to its decline. Sleep onset is the main impact. Management is education, sound enrichment, and restored amplification — but its unilateral character is itself part of the indication for imaging.
- **Current hearing aids have reached the end of both service life and clinical usefulness.** Eighty-five months old, out of warranty and firmware support, degraded batteries, a corroded and failing left receiver, and real-ear measurements 12 dB under target on the right (correctable, and corrected today) and 18–22 dB under target on the left with output limited by feedback before target is reachable. The left ear is not achieving audibility that current technology could provide; on the right, much of the deficit was a correctable fitting and maintenance problem.
- **Cochlear implant candidacy: the left ear meets criteria.** Best-aided AzBio 58% binaurally in quiet after optimization, with left-ear-alone aided performance of 31% and word recognition of 44% — below the thresholds used by most centers and payers for implantation of the poorer ear. He is motivated, has realistic expectations, is cognitively intact, and has adequate manual dexterity and corrected vision for device handling. Imaging must be completed first, both to exclude retrocochlear pathology and to assess cochlear anatomy.
- **Balance and safety are a distinct concern:** mild unsteadiness for 2 years, one fall in 2024, Timed Up and Go 13.5 seconds, Romberg positive on foam, and DHI 16 — consistent with age-related multisensory decline plus diabetic risk rather than vestibular disease. Combined hearing and balance impairment compounds fall risk. Additionally, three specific auditory safety gaps: doorbell, smoke alarm, and a missed reversing-vehicle alert.
- **Plan direction:** MRI of the internal auditory canals, otology consultation, immediate optimization of the right ear (done today) with a remote microphone and telecoil to address the dinner-table goal, cochlear implant evaluation for the left ear pending imaging, tinnitus management, alerting-device recommendations, and fall-prevention referral. No red flags requiring same-day escalation — no sudden loss, no facial weakness, no pulsatile tinnitus, no neurologic deficit.

P PLAN

13 MANAGEMENT BY PROBLEM

- **Imaging and medical referral — first priority.** MRI of the internal auditory canals with and without gadolinium ordered today for 20 dB interaural asymmetry, unilateral non-pulsatile tinnitus, absent left acoustic reflexes, and disproportionately poor left word recognition. Renal function and stent compatibility already verified. Otology (neurotology) consultation placed for the same visit block as the MRI review. Patient and spouse counseled on the reason for imaging in plain terms, including that vestibular schwannoma is being excluded and that most such scans are normal.
- **Right ear optimized today.** Reprogrammed to 2026 thresholds and verified within 5 dB of DSL v5.0 targets at 2 and 4 kHz; microphone ports and charging contacts cleaned; wax guard replaced; correctly sized dome fitted. Restaurant program demonstrated. Immediate subjective and measured improvement (aided AzBio 52% to 58%). This buys real function while the left-ear pathway proceeds.
- **Assistive technology — direct answer to his primary goal.** Remote microphone system trialed today and dispensed on a 30-day trial: partner or table-center placement for family dinners and car use. Telecoil activated bilaterally and a dedicated telephone program created — demonstrated on a looped room with marked improvement. Captioned telephone service application completed with him in clinic. Bluetooth re-pairing attempted; the 2019 platform is not compatible with his current phone, which further supports device replacement.
- **Hearing aid replacement plan.** Recommended replacement of both devices with current-generation receiver-in-canal technology, custom closed molds bilaterally (needed for feedback headroom and appropriate for his degree of loss), rechargeable cells matched to 12 hours of wear, and current connectivity. Sequenced deliberately: proceed with the right ear now, and hold the left decision until MRI and cochlear implant evaluation are complete,

so he does not purchase a device for an ear that may be implanted. Cost, insurance benefit, and VA eligibility for service-connected noise-induced loss reviewed — VA audiology referral placed, as his Navy engine-room exposure is well documented.

- **Cochlear implant evaluation for the left ear.** Formal candidacy assessment initiated: aided AzBio documented today (58% binaural, 31% left alone), audiometric and word-recognition criteria met for the poorer ear. Next steps after MRI: CT temporal bones for cochlear patency and anatomy, neurotology surgical evaluation, medical clearance given diabetes and coronary artery disease, and pre-implant counseling including realistic expectations, the postoperative rehabilitation commitment, MRI-compatibility implications of an implant, and the possibility of losing residual left acoustic hearing. Counseled that bimodal use (implant left, hearing aid right) is the expected configuration and is generally well tolerated.
- **Tinnitus management.** Education delivered (mechanism, association with his hearing loss and noise history, reassurance regarding the absent pulsatile features). Bedside sound enrichment with a fan or low-level broadband sound; avoid total silence. Restored amplification and telecoil use are themselves first-line therapy. Sleep-hygiene review. THI 34 and TFI 36 recorded as baselines; cognitive behavioral therapy referral if handicap rises or sleep impact worsens. Written tinnitus information provided.
- **Communication strategies — patient and spouse together.** Face-to-face conversation, gaining attention before speaking, one speaker at a time, rephrasing rather than repeating louder, reducing competing noise (television off during meals, quieter restaurant seating away from kitchens, table-center microphone placement). Spouse coached to allow him to respond before answering for him. Written strategy sheet provided to both.
- **Hearing protection and conservation.** Continue electronic muffs for any firearm use — and counseled that further noise exposure to the better right ear now carries disproportionate consequence. Custom earplugs offered for shop tools. Safe headphone practice reviewed. Given his history, protecting the right ear is now a treatment priority in its own right.
- **Alerting devices and home safety.** Recommended a bed-shaker alarm clock, a strobe-and-shaker smoke alarm (specifically discussed after his uncertainty about hearing the current alarm), and a visual or amplified doorbell. Discussed the missed reversing-vehicle alert and heightened visual scanning in parking lots. Written vendor list provided.
- **Fall prevention and balance.** Physical therapy referral placed for balance and gait assessment given Timed Up and Go 13.5 seconds, one fall in 2024, Romberg positive on foam, and combined hearing and balance impairment. Home safety review, lighting, and continued cane use outdoors recommended. Diabetic foot and neuropathy surveillance flagged to primary care. Vestibular testing not indicated at present.
- **Coordination and education.** Coordination note sent today to Dr. Oyelaran (primary care) and to neurotology, summarizing the asymmetry, the imaging indication, and the implant pathway; a copy of the audiogram and AzBio results included. Emphasized to primary care the relevance of diabetes control to hearing preservation. Patient and spouse instructed to seek same-day care for any sudden hearing drop, new vertigo, facial weakness or numbness, new pulsatile tinnitus, or ear pain with drainage, and to call the clinic for device failure, dome or mold discomfort, or skin breakdown. Printed visit summary and all written materials provided; teach-back confirmed with both.

F FOLLOW-UP

14 REASSESSMENT PLAN

Follow-up

Return in 4 weeks for remote-microphone trial review and Client-Oriented Scale of Improvement re-rating on the four recorded goals, right-ear real-ear re-verification, and device replacement decision for the right side. MRI within 2–3 weeks with neurotology review of the images and of implant candidacy at the same block; CT temporal bones and pre-implant counseling to follow if imaging is favorable. Tinnitus reassessment with repeat THI at 3 months. Repeat audiogram in 6 months, or sooner for any change — the left ear now requires closer surveillance than his previous 3-to-4-year interval. Immediate return for sudden hearing change, new vertigo, facial weakness, or new pulsatile tinnitus.

TB TIME DOCUMENTATION & BILLING

TOTAL TIME SPENT
92 minutes

AUDIOLOGIC TESTING TIME
44 minutes

HEARING AID / DEVICE COUNSELING TIME
26 minutes

TINNITUS COUNSELING TIME
11 minutes

CARE COORDINATION TIME
7 minutes

RECORDS REVIEW TIME
9 minutes

AUDIOLOGIC EVALUATION CODE(S)
92557 — comprehensive audiometry (threshold and speech); 92620/92621 — evaluation of central auditory function / speech-in-noise assessment

TYMPANOMETRY / ACOUSTIC REFLEX CODE(S)
92550 — tympanometry and acoustic reflex threshold testing

OAE / ABR CODE(S)
92588 — distortion product OAE, comprehensive diagnostic evaluation. No ABR performed.

HEARING AID EVALUATION / FITTING / CHECK CODE(S)
92592 — hearing aid check, binaural; 92595 — electroacoustic evaluation, binaural; V5011 — fitting/orientation/checking

VESTIBULAR TESTING CODE(S)
None — not indicated this visit

E/M LEVEL, IF APPLICABLE
Not billed — services captured under audiologic testing and device codes

BASIS FOR BILLING
Audiologic testing and device services with documented counseling; cerumen removal (69210) billed separately for the right ear

PRIMARY DIAGNOSIS
H90.3 — Sensorineural hearing loss, bilateral (asymmetric)

SECONDARY DIAGNOSES
H93.12 Tinnitus, left ear; H83.3X2 Noise effects on left inner ear; H61.21 Impacted cerumen, right ear; R42 Unsteadiness; Z57.0 Occupational exposure to noise; E11.9 Type 2 diabetes mellitus

SO PROVIDER SIGN-OFF

PROVIDER NAME	CREDENTIALS	SPECIALTY	DATE	TIME
Renee C. Bakhtiari, AuD	AuD, CCC-A	Audiology / Hearing Care	08/11/2026	15:05