



LIVING GUIDELINES V3.0

SUMMARY OF RECOMMENDATIONS AND
GOOD PRACTICE STATEMENTS

JULY 2024



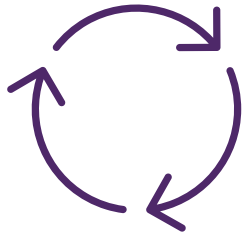
01

INTRODUCTION TO THE LIVING GUIDELINES

LIVING GUIDELINES PURPOSE



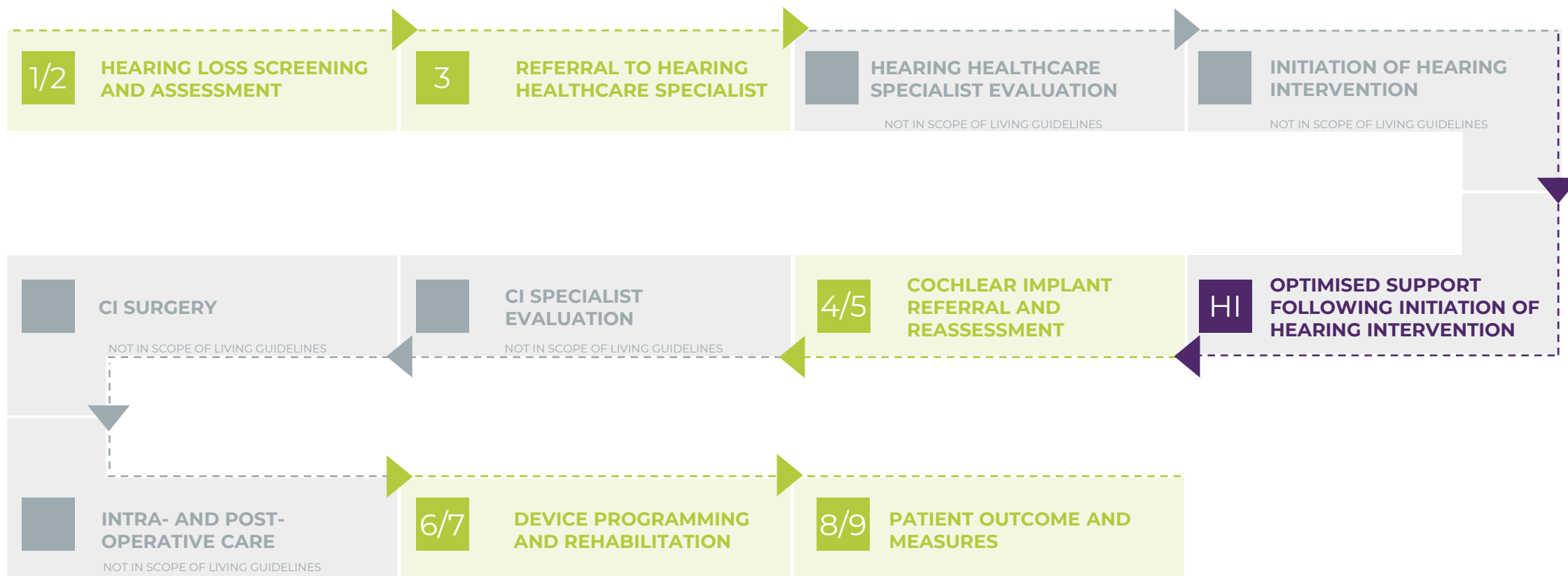
The project goal was to create living practice guidelines and guidance that can be adapted and adopted in country, **to optimise the care for adults living with hearing loss and the role of cochlear implantation.**



“Living guidelines” are guidelines which are **continually kept up to date** as new evidence emerges.

LIVING GUIDELINES CONSIDERATIONS

The Living Guidelines considers a patients journey from **hearing loss screening, to support following initiation of hearing interventions, to cochlear implantation then rehabilitation.**



LIVING GUIDELINES TASK FORCE



Representative of the
globe



Includes healthcare
practitioners across
the hearing journey



Representative of the
patient voice



Expertise provided
in-kind

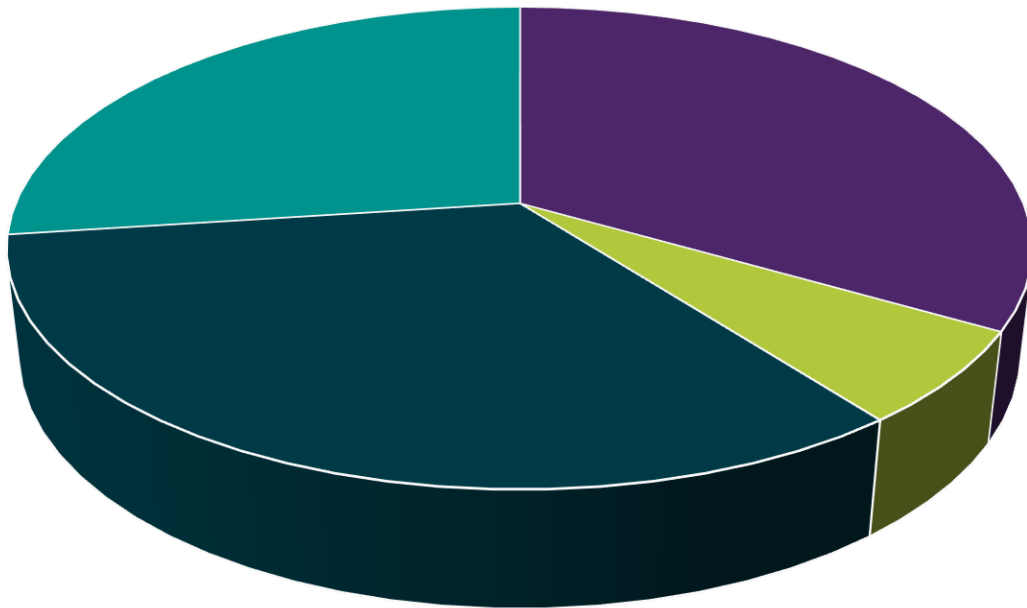
47 members of the Cochlear
Implant (CI) Task Force

21 members of the Hearing
Intervention Working Group
(HIWG)

LIVING GUIDELINE INTERNATIONAL REACH

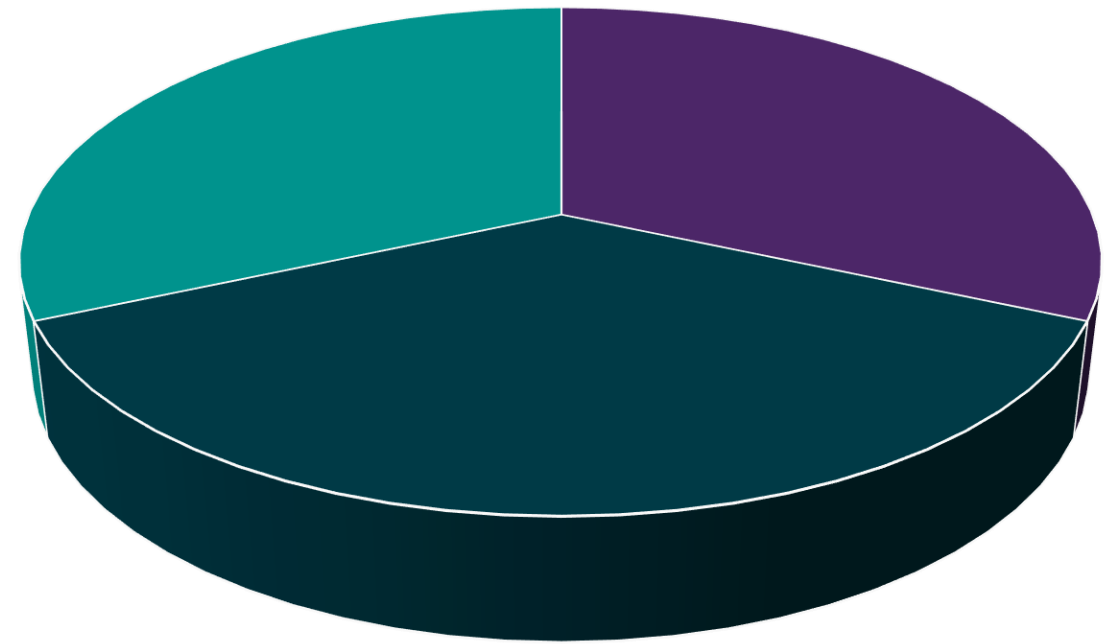
The CI Task Force and Hearing Intervention Working Group (HIWG) are representative of the globe, including members from **North and South America, Europe/the Middle East/Africa (EMEA), and the Asia Pacific (APAC) regions**

CI Task Force Global Representation



■ North America ■ South America ■ EMEA ■ APAC

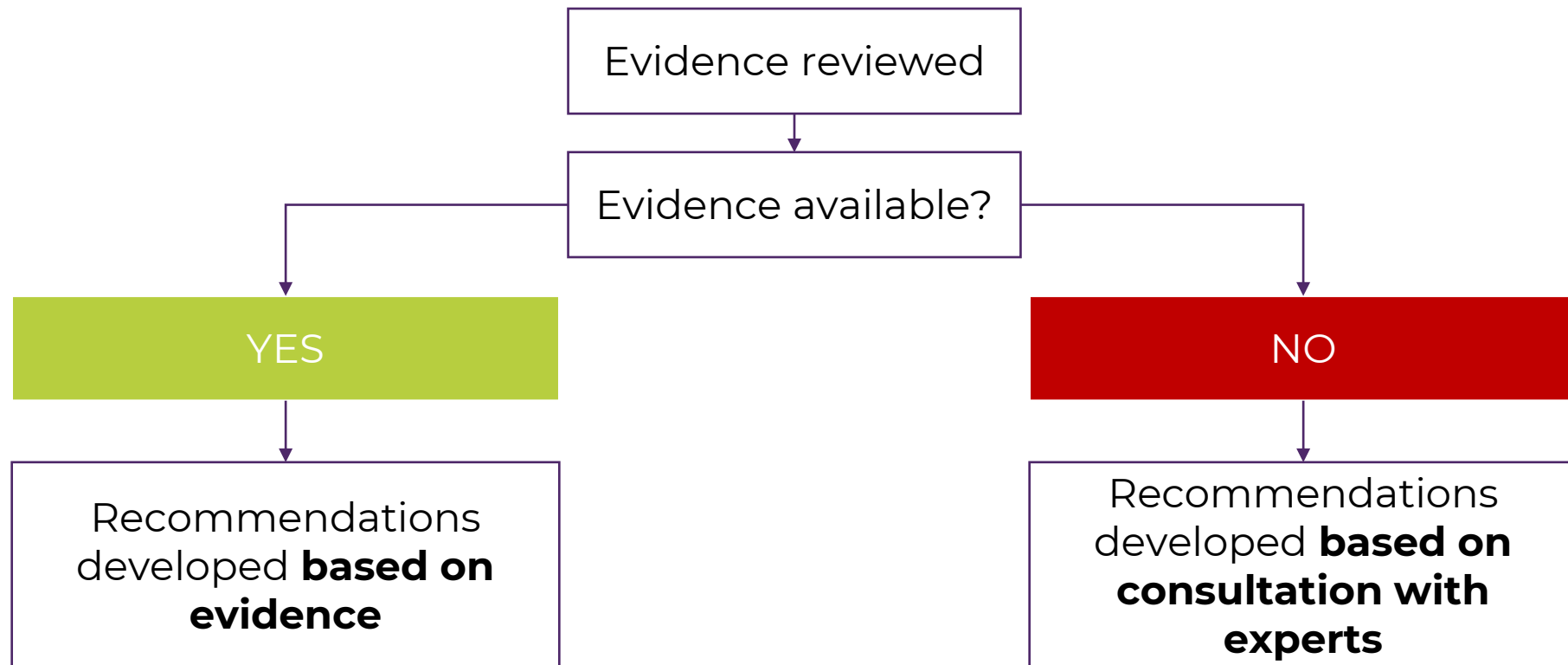
HIWG Global Representation



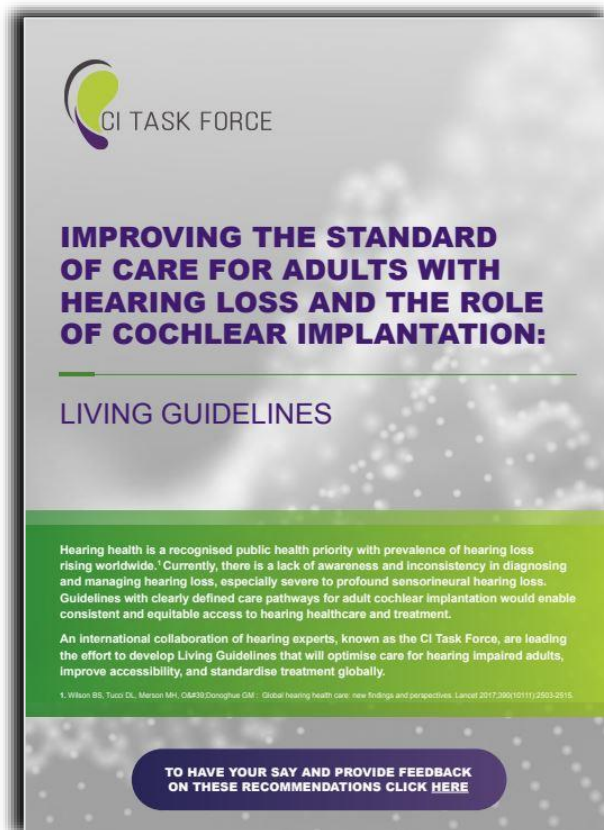
■ North America ■ EMEA ■ APAC

LIVING GUIDELINE CREATION

The Living Guidelines were informed via systematic review of evidence, and, where evidence was not available, via the clinical expertise of the Task Force.



LIVING GUIDELINES LAUNCH



Version 1.0 of the Living Guidelines **underwent public consultation** from March 2023 to May 2023



The Living Guidelines Version 2.0 were **launched in July 2023**



The **process of developing Version 3.0** of the Living Guidelines **began in November 2023**



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LIVING GUIDELINES VERSION 3.0

LIVING GUIDELINES VERSION 3.0



The Living Guidelines Version 3.0 were **launched in July 2024** and are **available on [MAGICapp](#)**



Considers the journey throughout the **hearing health continuum**



Considers the most recent **evidence as of January 2024**



Guided by a global Task Force of audiologists, ENT surgeons, hearing health specialists, and people living with hearing interventions and cochlear implants

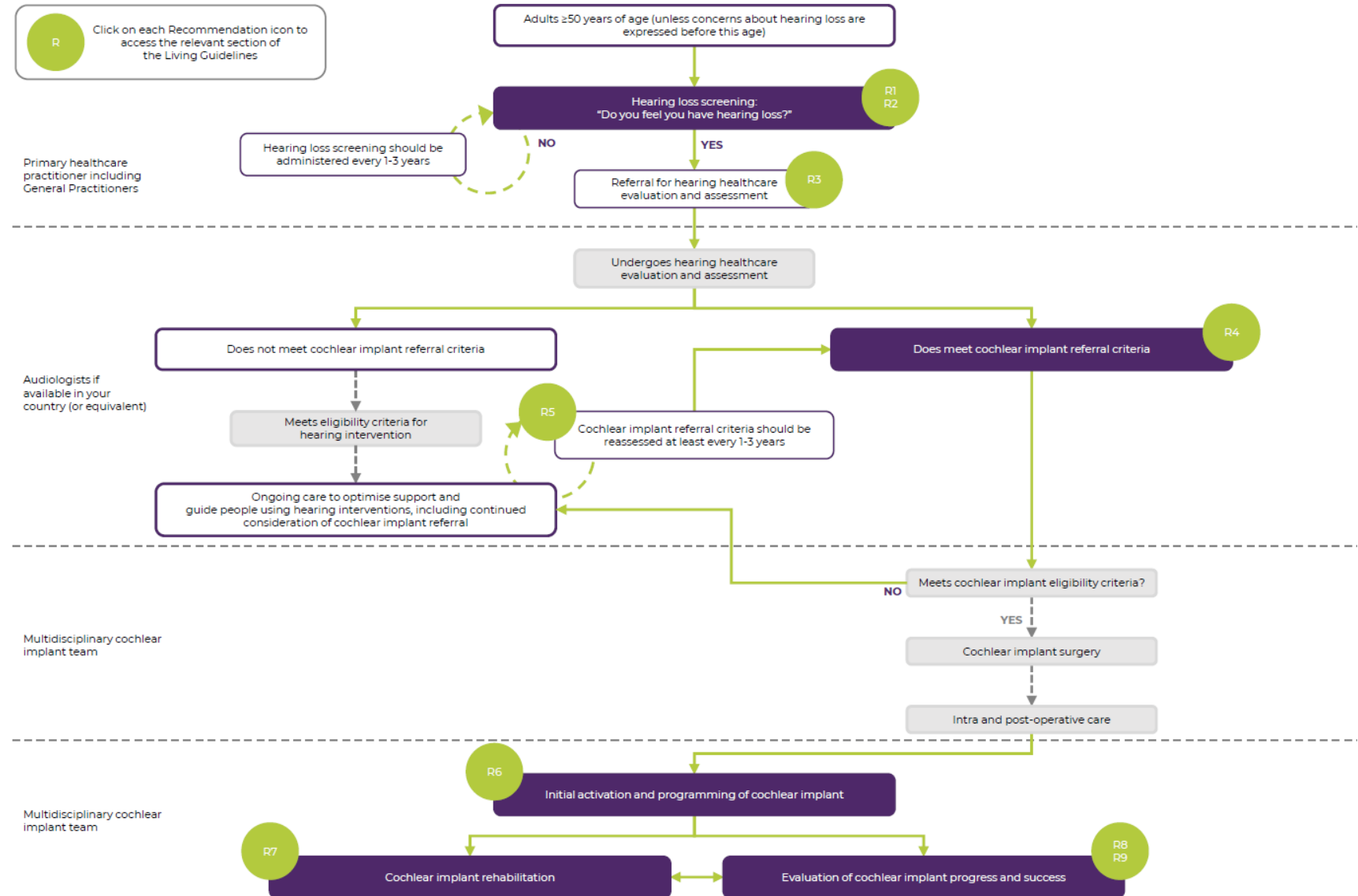
PATIENT HEARING JOURNEY



Presents an **overview of the patient journey** from hearing loss screening, to support following initiation of hearing interventions, to cochlear implantation, then rehabilitation.



Click on the image of the patient hearing journey to enlarge and access a downloadable version.



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CI LIVING GUIDELINE
RECOMMENDATIONS
SUMMARY

For full access to Living Guidelines, including Good Practice Statements, please click [here to visit **MAGICapp**](#)

RECOMMENDATION ONE & TWO

WEAK
RECOMMENDATION



Hearing loss screening should be offered to adults from the age of 50 years (unless concerns about hearing loss are expressed before this age) using the single question:

“Do you feel you have hearing loss?”

If a person answers “yes”, the next steps should be informed as per the hearing loss referral recommendations of these Living Guidelines.

Hearing loss screening should be administered at the frequency of 1–3 years.

RECOMMENDATION THREE

CONSENSUS
RECOMMENDATION



For an adult who presents for the first time with any level of hearing loss, or in whom hearing difficulties are suspected, the primary healthcare professional should:

- check for impacting factors such as impacted wax and acute infections (e.g. otitis externa, otitis media and otitis media with effusion), and
- arrange a referral to a hearing healthcare specialist for a full audiological assessment, and
- if sudden or rapid onset hearing loss is suspected or hearing loss is not explained by acute external or middle ear causes, additional immediate referral to an ENT specialist or an emergency department is warranted.

RECOMMENDATION FOUR

STRONG
RECOMMENDATION



An adult with any level of hearing loss should be referred for cochlear implant evaluation if they meet the cochlear implant referral criteria of three frequency (500, 1000, 2000 Hz) unaided pure-tone average (PTA) in one or both ears equal to or greater than 60 dB HL (decibels hearing level) AND expresses difficulties with speech understanding in their everyday environment.

The hearing healthcare specialists could also use a four frequency (500, 1000, 2000, and 4000 Hz) unaided PTA in one or both ears for referral.

Any adult that meets the above cochlear implant referral criteria should be referred to a cochlear implant specialist for a complete cochlear implant evaluation and preoperative assessment to determine cochlear implant candidacy.

RECOMMENDATION FIVE

CONSENSUS
RECOMMENDATION



If an adult with any level of hearing loss does not meet the cochlear implant referral criteria upon initial assessment, cochlear implant referral criteria should be assessed at least every 1–3 years by an audiologist if available in your country (or equivalent). If upon reassessment the cochlear implant referral criteria is met, they should be referred to a cochlear implant specialist for a complete cochlear implant evaluation and preoperative assessment. However, if the person has sensorineural hearing loss (50 dB – 64 dB HL) or the adult experiences a significant change in their hearing ability, then they should be reassessed at least every 6–12 months by an audiologist if available in your country (or equivalent).

RECOMMENDATION SIX

CONSENSUS
RECOMMENDATION



Initial activation and programming of adult cochlear implant users with severe, profound, or moderate sloping to profound sensorineural hearing loss should take place within the first 28 days post-surgery based on the person's recovery and approval from the cochlear implant surgical team.

Post-activation, a cochlear implant user should have between 4–6 appointments within the first twelve months of cochlear implant use. Of these, between 2–3 should be mapping appointments taking place during the first 3 months post-activation, with additional appointments in the first year being scheduled at the discretion of the cochlear implant surgical team.

RECOMMENDATION SEVEN

CONSENSUS
RECOMMENDATION



Cochlear implant rehabilitation for a user with severe, profound or moderate sloping to profound sensorineural hearing loss should be a multidisciplinary and person and family-centred approach. The essential members of the multidisciplinary cochlear implant team include:

- ENT specialist specialised in cochlear implants
- Audiologist if available in your country (or equivalent)
- Speech and language therapist if available in your country (or equivalent)

The multidisciplinary cochlear implant team may involve other specialties including, but not limited to:

- Psychologist
- Neurologist
- Geriatrician
- Social worker
- Radiologist
- Peer support (individual and/or group)

RECOMMENDATION SEVEN CONTINUED

CONSENSUS
RECOMMENDATION



The multidisciplinary cochlear implant team should consider initial rehabilitation (rehabilitation in the first year following cochlear implantation) and lifelong rehabilitation (ongoing rehabilitation after the first year of cochlear implantation). The cochlear implant user, their family and/or friends should collaboratively plan their cochlear implant rehabilitation with their multidisciplinary team.

Initial rehabilitation

The components of initial rehabilitation that should be considered include:

ENT specialist specialised in cochlear implants

- Cochlear implant follow up should take place up to three times in the first year following cochlear implantation (see [Recommendation 6](#)).
- Otoscopy (using a magnifying otoscope, ear microscope or ear endoscope) and if necessary
 - a radiological examination, and/or
 - a laboratory examination

RECOMMENDATION SEVEN CONTINUED

CONSENSUS
RECOMMENDATION



Audiologist if available in your country (or equivalent)

- Initial programming of the device to optimise access to sound and patient comfort and performance (see [Recommendation 6](#)).
- Duration of processor use per day.
- Check implant site related to magnet strength.
- Information and in-depth instruction in handling (care, maintenance, fault and error detection) of the cochlear implant system and in the use of available additional devices (e.g. telephone adapter, charger, additional microphone, induction or T-coil, etc.).
- Monitor aided listening performance overtime using formal free field (sound field) hearing tests and standards.
- Speech perception test in silence and in background noise.
- Counselling regarding pairing, fitting and usage of mobile media devices (e.g., smartphone TV, iPad and laptop) and other assistive listening devices.
- Training on repair strategies (i.e. basic device troubleshooting).
- In the instance of bimodal hearing, bimodal and electroacoustic adjustment should be review.

RECOMMENDATION SEVEN CONTINUED

CONSENSUS
RECOMMENDATION



Speech and language therapist if available in your country (or equivalent)

- Auditory therapy including analytic and synthetic auditory training (with phonemes, words, sentences and text) at the level of detection, discrimination, identification and comprehension in different listening conditions (in quiet, noise, with visual support e.g. lip-reading) and without visual support, using different listening devices (live voice, radio, laptop, TV, external microphone etc.).
- Training or instruction on the appropriate use and management of the sound processor and assistive listening devices.
- Training on how to improve your communication skills in daily life (at home, work, during leisure time etc.). Identify when communication has failed and why.
- Listening 1 to 1 and in (small) groups.
- Music training.
- Telephone training.

RECOMMENDATION SEVEN CONTINUED

CONSENSUS
RECOMMENDATION



Lifelong rehabilitation

The components of lifelong rehabilitation that should be considered include:

ENT specialist specialised in cochlear implants

- Cochlear implant follow up every 3 years, unless otherwise indicated.

RECOMMENDATION SEVEN CONTINUED

CONSENSUS
RECOMMENDATION



Audiologist if available in your country (or equivalent)

- Ongoing programming of the device to optimise access to sound and patient comfort and performance.
- Technical advice and evaluation of the functionality of the cochlear implant system.
- Counselling and fitting of mobile media devices and other assistive listening devices.
- Speech perception test in silence and in background noise online, if available.
- Monitor aided listening performance over time online, if available.
- Periodical adjustment and fine-tuning of processors including control of stimulation parameters.
- Training on repair strategies (i.e. basic device troubleshooting).
- In the instance of bimodal hearing, bimodal and electroacoustic adjustment should be reviewed, if necessary.

RECOMMENDATION SEVEN CONTINUED

CONSENSUS
RECOMMENDATION



Speech and language therapist if available in your country (or equivalent)

- Monitor progress on all rehabilitation topics.
- Appropriate use and management of the cochlear implant sound processor and assistive listening devices.
- Ongoing auditory therapy to train speech perception in difficult listening situations. For example, listening in group situations, from a distance, in noise and through the telephone.
- Training on how to improve communication skills in daily life (e.g. at home, work and during leisure time). Identify when communication has failed and why.

RECOMMENDATION SEVEN CONTINUED

CONSENSUS
RECOMMENDATION



Other components

Other components of both initial and lifelong rehabilitation that could be considered on a case-by-case basis include, but are not limited to:

- Counselling or psychological support.
- Peer support (individual and/or group).
- Social worker support for those who need extra support to live independently.
- Advocacy training.

RECOMMENDATION EIGHT

CONSENSUS
RECOMMENDATION



Two outcomes were identified as most meaningful when evaluating improvement post-implantation in adult cochlear implant users with severe, profound or moderate sloping to profound sensorineural hearing loss. As such, audiologists if available in your country (or equivalent) should evaluate:

1. Hearing-specific quality of life (including social-emotional functioning and wellbeing)
2. Speech perception (particularly in noise)

RECOMMENDATION NINE

CONSENSUS
RECOMMENDATION



Two measurement tools should be used to evaluate the outcomes most meaningful to a person when evaluating improvement post-implantation in cochlear implant users with severe, profound or moderate sloping to profound sensorineural hearing loss. As such, audiologists if available in your country (or equivalent) should use:

1. The Nijmegen Cochlear Implant Questionnaire (NCIQ) or the Cochlear Implant-Quality of Life (CIQOL) (global version at a minimum) to evaluate hearing-specific quality of life in adult cochlear implant users with severe, profound, or moderate sloping to profound sensorineural hearing loss. If the NCIQ or CIQOL are not validated in the cochlear implant user's dominant language, another validated QoL measure may be used.
2. Validated communication measures including speech perception tests in the dominant language of the adult cochlear implant user by using words and/or sentences in quiet and noise.

The NCIQ or CIQOL and speech perception measures should be administered before cochlear implantation to establish an individual's baseline and then again at least once 6-12 months after the cochlear implant is activated to measure personal progress.

04

HIWG
RECOMMENDATIONS
AND GOOD PRACTICE
STATEMENTS

For full access to the Hearing Intervention Recommendations and Good Practice Statements, please click [here to visit MAGICapp](#)

PRIMARY RECOMMENDATION

PRIMARY RECOMMENDATION

For people using hearing interventions, the recommended care to optimise support and guide their journey throughout the hearing health continuum is served by existing local guidelines and guidance.

It is recommended audiologists if available in your country (or equivalent) refer to their local guidelines and guidance. In addition, the following Good Practice Statements should be considered to supplement local guidelines and guidance.

The Hearing Intervention Working Group relayed the following existing guidelines and guidance:

World Health Organization

- [Hearing aid service delivery approaches for low- and middle-income settings – World Health Organization \(WHO\), 2023](#)

Australia

- [Professional Practice Guide – Audiology Australia, 2022](#)

United Kingdom

- [Hearing loss in adults: assessment and management – National Institute for Health and Care Excellence \(NICE\), 2023](#)
- [Guidelines for best practice in the audiological management of adults with severe and profound hearing loss - Turton et al., 2020](#)
- [Quality standards for adult hearing rehabilitation services - Welsh Government, 2016](#)
- [What works: hearing loss and healthy ageing - NHS England, 2017](#)
- [Practice guidance: common principles of rehabilitation for adults in audiology services - British Society of Audiology, 2016](#)

United States

- [Clinical Practice Guideline: Age-related Hearing Loss – Tsai Do et al., 2024](#)
- [American speech-language-hearing association clinical practice guideline on aural rehabilitation for adults with hearing loss - Hamlin et al., 2023](#)

OBJECTIVE AND SUBJECTIVE PERFORMANCE

GOOD PRACTICE STATEMENT 1

For people using hearing interventions, assessment of objective and subjective performance should be regularly conducted using validated tools* in the dominant language of the person being assessed.

Each assessment should be considered from the subjective perspective of the person using a hearing intervention alongside the objective verification and validation by an audiologist if available in your country (or equivalent). The perspective of family members and carers may also be considered.

At a minimum, this includes the assessment of:

- Communication ability, including listening and hearing, ease and satisfaction in various listening circumstances
- Benefit and satisfaction of hearing interventions in various listening circumstances
- Ability to maintain personal and professional relationships in various listening circumstances
- Satisfaction with listening and hearing of environmental sounds in various listening circumstances

At a minimum, objective and subjective performance, including cochlear implant referral eligibility (see Recommendation 4 and Recommendation 5), should be assessed:

- Before a person receives a hearing intervention to establish a person's baseline
- Again upon provision of the hearing intervention
- 1-3 months after a person receives a hearing intervention and annually thereafter.

Objective and subjective performance should be reassessed if a person using hearing interventions expresses dissatisfaction or the expected therapeutic benefit of the hearing intervention is not observed. In this instance, medical or other audiological treatment alternative(s) could be considered.

**Validated tools may include real ear measures (REMs) and aided and non-aided speech tests (words in quiet and sentences in noise).*

GOAL SETTING AND ACHIEVEMENT

GOOD PRACTICE STATEMENT 2

The individual needs of each person using hearing interventions should be prioritised and appropriate support and guidance should be provided accordingly.

Audiologists if available in your country (or equivalent), should aim to facilitate personalised patient goal setting and achievement. At a minimum, this includes:

- Time devoted to understanding a person's motivations and perceived self-efficacy of hearing health that is regularly re-evaluated.
- Lifelong and ongoing education, support and guidance on the importance of devoting time and effort to communication training.
- If available, life long and ongoing assistance with establishing contact with suitable providers of communication training opportunities, including peer support services (individual and/or group).

The perspective of family members and carers may also be considered when facilitating goal setting and achievement.

If a person using hearing interventions expresses dissatisfaction or the expected therapeutic benefit of the hearing intervention is not observed, medical or other audiological treatment alternative(s) should be considered.

QUALITY OF LIFE

GOOD PRACTICE STATEMENT 3

Hearing-related quality of life in people using hearing interventions should be regularly assessed by audiologists if available in your country (or equivalent).

The assessment measure should be validated and administered in the dominant language of the person using hearing interventions.

At a minimum, hearing-related quality of life should be assessed before a person receives a hearing intervention to establish a person's baseline and 1-3 months after a person receives a hearing intervention. Hearing-related quality of life should be reassessed annually after that to measure personal progress.

Audiologists if available in your country (or equivalent) should prioritise using the data gathered to inform hearing intervention counselling and rehabilitation efforts, including monitoring outcomes and eligibility for CI referral criteria.

The perspective of family members and carers may also be considered when considering hearing-related quality of life.

ROLE OF REHABILITATION

GOOD PRACTICE STATEMENT 4

People using hearing interventions, should have ongoing access to hearing health rehabilitation. Participation in hearing health rehabilitation should be life long. A multidisciplinary, person-centric approach is encouraged.

At a minimum, hearing health rehabilitation should include:

- Personal adjustment counselling, which may include support during the acclimatisation period and establishing hearing and listening expectations
- Informational counselling, which may include in-depth instruction in handling such as care, maintenance, fault/error detection and troubleshooting
- Hearing/auditory rehabilitation, which may include providing supportive strategies and tactics to aid listening and hearing in various listening circumstances
- Social support, which may include establishing contact with peer support services (individual and/or group)

Family members and carers may also be engaged to support rehabilitation in people who are using hearing interventions.

ROLE OF TECHNOLOGY

GOOD PRACTICE STATEMENT 5

People using hearing interventions should be informed of the ongoing role of technology throughout the hearing health continuum.

At a minimum, audiologists if available in your country (or equivalent) should discuss the following at the earliest opportunity:

- Hearing aids
- Implantable devices, such as acoustic, bone-conduction, middle ear, and cochlear implants (CIs)
- Other assisted listening devices, including new developments in assisted listening device technology
- Assistive communication technology, including text-to-speech applications, Bluetooth connectivity, alerting systems, and other innovations supporting communication, listening and hearing

Counselling regarding the limitations of technology should also be provided to ensure hearing and listening expectations are established.

Family members and carers may also be informed when discussing the role of technology throughout the hearing health continuum.

COGNITIVE FUNCTIONING

GOOD PRACTICE STATEMENT 6

Cognitive functioning of people using hearing interventions should be considered throughout the hearing health continuum. This includes populations living with cognitive decline and populations at increased risk of cognitive decline, such as people with advancing age.

If the audiologist if available in your country (or equivalent) is concerned about the cognitive functioning of the person using the hearing intervention and is adequately trained, screening for cognitive functioning should be conducted. Screening should be done using a validated tool and administered in the dominant language of the person using the hearing intervention. If indicated, the person should be referred to an appropriate specialist.

If the audiologist if available in your country (or equivalent) is concerned about the cognitive functioning of the person using the hearing intervention and is not adequately trained to screen for cognitive functioning, the person should be referred to an appropriate specialist.

The perspective of family members and carers may also be considered when regarding the cognitive functioning of the person using the hearing intervention.

In people living with cognitive decline, the provision of hearing health care should be adapted accordingly and in consultation with an appropriate specialist.

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