



# COCHLEAR IMPLANTATION IN ADULTS

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## OPTIMISING CARE THROUGH LIVING GUIDELINES

Cochlear implants (CIs) are an effective medical treatment for many adults living with severe, profound, or moderate sloping to profound sensorineural hearing loss (SPSNHL). However, it is estimated that only ~5% of adults who could benefit from a CI have one.<sup>1,2</sup>

An international collaboration of hearing experts, known as the CI Task Force, are leading the effort to develop Living Guidelines that will optimise care for hearing impaired adults, improve CI accessibility, and standardise treatment globally.

*“As my hearing became worse I became isolated from conversations, spending most of the time watching others talking, feeling as though I was in a glass box.”*

*Ngaire, CI Recipient*



## Hearing and Healthy Ageing

For adults with SPSNHL, cochlear implantation can significantly improve quality of life.<sup>3</sup>

One in three people over the age of 65 are affected by hearing loss (HL).<sup>4</sup> Hearing impairment in adulthood can lead to social isolation and is associated with accelerated mental and physical decline, including an increased risk of falls and dementia.<sup>5-7</sup>

There is currently no global standard of care for cochlear implantation in adults. Country-specific guidelines vary and are associated with disparate levels of access and systemic underuse across the world.<sup>1</sup> The Living Guidelines project will establish evidence-based, best practice recommendations for cochlear implantation in eligible adults.

## What are ‘Living’ Guidelines?

The Living Guidelines will use continuous evidence surveillance and rapid response pathways to continually incorporate new relevant evidence into systematic reviews and clinical practice recommendations. This will ensure that the guidelines are continually aligned with current research and changing practices.

## The Value of Living Guidelines

The goal of this initiative is to **optimise the standard of care** for hearing impaired adults by **addressing the unmet needs** of patients, primary care providers, hearing health professionals (HHPs) and policymakers.



Patients and the community

### Streamline the patient pathway

- Prioritise hearing health among adults
- Establish standards for hearing assessment and reassessment
- Provide patient education and support materials

### Establish best practice recommendations

- Deliver easily accessible and practical tools to guide assessment, referral, treatment and aftercare
- Establish an independently verified and evidence-based global standard of care
- Educate and upskill those involved in the pathways to care



Primary care providers and HHPs



Payer/policymakers

### Increase CI accessibility

- Ensure appropriate clinical services and reimbursement through:
  - defining clear and consistent CI candidacy criteria
  - increasing patient-relevant data available for decision making

# What is the CI Task Force?

The CI Task Force is an independent global committee that has been established to lead the design and implementation of the Living Guidelines project. The Task Force is led by three co-chairs and is comprised of experts in the field of CI use, including CI recipients, Audiologists and Ear, Nose and Throat Specialists across 20 countries.

## CI TASK FORCE CO-CHAIRS



Meredith Holcomb (USA)



Leo De Raeve (Belgium)



Ángel Ramos Macías (Spain)

## CI TASK FORCE MEMBERS

- |                            |                                |                        |                          |
|----------------------------|--------------------------------|------------------------|--------------------------|
| Alejandra Ullauri (US)     | Neelam Vaid (IN)               | Katie Neal (AU)        | Ricardo Bento (BR)       |
| Alejandro Rivas Campo (US) | Federico Alberto Di Lella (AR) | Laura Turton (UK)      | Piotr H. Skarżyński (PL) |
| Alicia Spoor (US)          | Jose Alberto Prieto (CO)       | Lise Hamlin (US)       | Ulrich Hoppe (DE)        |
| Åsa Skagerstrand (SE)      | Mohamed ElShazly (EG)          | Matthew Carlson (US)   | Regina Presley (US)      |
| Bamini Gopinath (AU)       | Erin Miller (US)               | Maura Cossetti (US)    | Richard Gurgel (US)      |
| Bernard Fraysse (FR)       | Esther Ximena Vivas (US)       | Michal Luntz (IL)      | Sarah Sydlowski (US)     |
| Cath McMahon (AU)          | Hamid Benghalem (MA)           | Natalie Morog (CA)     | Shakeel Saeed (UK)       |
| Cathy Birman (AU)          | Hao-WU (CN)                    | Nina Quinn (AU)        | Seung Ha (KR)            |
| Christophe Vincent (FR)    | Heidi Hill (US)                | Oliver Adunka (US)     | Shimng-YANG (CN)         |
| Claire Iseli (AU)          | Hen Wai Yuen (SG)              | Pádraig Kitterick (AU) | Stefano Berrettini (IT)  |
| Craig Buchman (US)         | Holly Teagle (NZ)              | Paul Mick (CA)         | Tatsuya Yamasoba (JP)    |
| Darja Pajk (SI)            | Jennifer Maw (US)              | Mohan Kameswaran (IN)  | Timo Stöver (DE)         |
| Domenico Cuda (IT)         | Jenny Loo (SG)                 | Peter Wolnizer (AU)    |                          |



# Bringing the Living Guidelines to Life

The scope for the Living Guidelines project is the largest of its kind for cochlear implantation and will be conducted in two key phases:

## PHASE 1:

### Systematic Literature Review (SLR)

The CI Task Force will develop draft guideline recommendations based on evidence gathered through a SLR of over 14,000 scientific publications. The SLR will also incorporate the existing research and recommendations provided by the 2020 International Consensus Paper on unilateral cochlear implantation in adults, published by Buchman *et al.*<sup>1</sup> The evidence base will be continuously updated to ensure the Living Guidelines react quickly to new evidence and changes in clinical practice.

## PHASE 2:

### Global Consultation and Refinement

The guideline recommendations will be refined through meaningful consultation with key hearing stakeholders, including primary care specialists and referrers, subject matter experts, advocacy organisations and specialty bodies.

This extensive consultation process will increase global consensus and ensure the final recommendations are appropriate and can be practically applied at a local level.

# The Patient Voice

CI recipients are integral to the Living Guidelines development process and will be engaged throughout. One key mechanism to do this will be through the **Cochlear Implant International Community of Action (CIICA)**, which draws on a network of 80 organisations and individuals from over 50 countries.

# Living Guidelines Scope

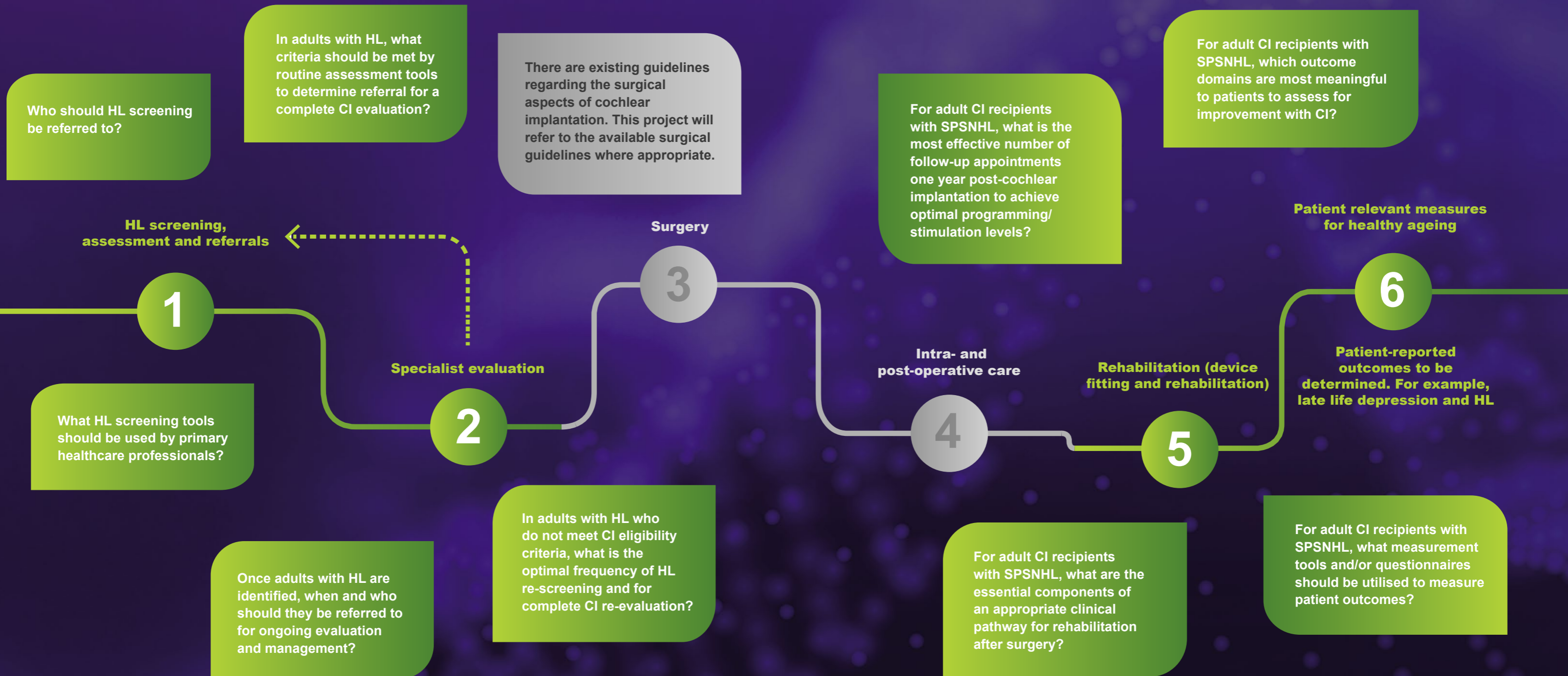
There are many barriers to cochlear implantation, including the stigma associated with hearing loss, low levels of CI awareness among primary care providers and health system related issues.<sup>1,4</sup> The Living Guidelines will aim to minimise these barriers.

A review protocol created by the CI Task Force has been registered with the international prospective register of systematic reviews (PROSPERO). The protocol outlines the questions that will be addressed by the review, which aim to assess all steps in the patient pathway.



*“It makes me really sad to think that there are so many people out there that would benefit from a cochlear implant that are not being referred at the moment.”*

Anthony, CI Recipient



# MAXIMISING SUCCESS

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It is anticipated that the Living Guidelines will be locally adapted and adopted into country-based guidelines. Additional implementation activities will be undertaken based on regional and country-specific requirements. These activities are likely to involve targeting existing gaps and increasing awareness through education, training programs and translation of the Living Guidelines into a format that is accessible to patients.

## Want to know more?

Email [info@adultheating.com](mailto:info@adultheating.com) or visit [adultheating.com/living-guidelines](https://adultheating.com/living-guidelines) for further information and to:



**Share this information and increase awareness of the Living Guidelines project and the need to improve access to optimal hearing care**



**Learn more about how the Living Guidelines can be implemented and applied in your region or country**



**Register your hearing advocacy group, specialty body or organisation to review and endorse the Living Guidelines**

The Living Guidelines project will be supported by industry. The funding organisations will not contribute to the design, facilitation or content of the Living Guidelines. Health Technology Analysts, an independent healthcare consultancy, will coordinate the CI Task Force and provide technical expertise to bring the Living Guidelines to fruition.

**References:** 1. Buchman CA, Gifford RH, Haynes DS, Lenarz T, O'Donoghue G, Adunka O, *et al.* Unilateral cochlear implants for severe, profound, or moderate sloping to profound bilateral sensorineural hearing loss: A systematic review and consensus statements. *JAMA Otolaryngology-Head & Neck Surgery*. 2020;146(10):942–53. 2. Sorkin DL. Access to cochlear implantation. *Taylor & Francis*; 2013. 3. Gaylor JM, Raman G, Chung M, Lee J, Rao M, Lau J, *et al.* Cochlear implantation in adults: a systematic review and meta-analysis. *JAMA Otolaryngol Head Neck Surg*. 2013;139(3):265–72. 4. WHO. Addressing the prevalence of hearing loss. 2018. 5. WHO. World report on hearing. 2021. 6. Jiam NTL, Li C, Agrawal Y. Hearing loss and falls: a systematic review and meta-analysis. *Laryngoscope*. 2016;126(11):2587–96. 7. Livingston G *et al.*, Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *The Lancet Commissions*. 2020;396:413–46.