DECLARATION

Nordic Adult CI Action Group

IMPROVING ACCESS TO COCHLEAR IMPLANTS (CI) FOR ADULTS

THE GROWING CHALLENGE OF SEVERE TO PROFOUND HEARING LOSS

THE CASE FOR ACTION

This declaration focuses on adults over 18 years old with severe to profound hearing loss, of over 65dB.*

- All adults with severe to profound hearing loss should be eligible to be evaluated for CI's.
- Professionals who see those with Hearing Loss must have up to date information and guidelines for when and how to refer patients to CI teams.
- For adults eligible for CI's, access to assessment and treatment should be provided without any unnecessary delay.
- Established indications and guidelines should be matched with adequate resources and funding.
- Adults with severe to profound hearing loss should get access to optimal hearing care in both ears, including bilateral implants.
- CI is a lifelong treatment.
  - For the severe to profound hearing-impaired every technology improvement counts. Hence regularly updating to the latest technology is required, with a minimum replacement every five years.
  - Consumables such as batteries, coils, remote controls, swimming kit for CIs, activation of telecoil, BT/streamers and microphone filters should be funded
- As a long term goal, adult screening should be introduced routinely from the age of 50 years as per the WHO recommendations for adult screening: *(WHO, Hearing Screening handbook, 2021).*
- Each country should have independent data collection for cochlear implantation to assist planning services.

WHY:

- In the adult population, the prevalence of severe to profound hearing loss is approximately 0.3%. In the Nordic countries this equates to over 65,000 adults. *(Tema Hörsel 2018; Engdahl et al 2021; West et al, 2020).*
- Unaddressed hearing loss and deafness not only have a huge personal impact on individuals, but also cause substantial societal costs. In adults, hearing loss leads to social isolation, loss of independence, unemployment, mental health issues, falls, cognitive decline, resulting in the increased use of health and social care services. *(WHO, World Report on Hearing, 2021).*
- Midlife hearing loss is also the biggest risk factor for cognitive decline and dementia. *(Livingstone 2020: WHO, World Report on Hearing, 2021).*
- The Global Burden of Disease Study (GBD) ranks hearing loss as the third most common cause of Years Lived with Disability (YLD) and is the leading cause in the over 70's. *(The Lancet, 2021).*

THE GAP IN PROVISION FOR CI IN THE NORDICS

Today's hearing technologies including cochlear implants (CI) can change this: but access to CI is low and provision inadequate *(Turunen-Taheri et al 2019)*

On average, across the Nordic countries, 9 in 10 who could benefit from cochlear implants, have not been implanted.

- Based on prevalence studies from the Nordic countries ~65,000 adults are estimated to have severe to profound hearing loss.
- Merely ~9,500 adults with severe to profound hearing loss have a CI.

This gap in provision results in a massive personal and public health issue in dealing with the consequences of unaddressed hearing loss despite the proven benefits of CIs.

> **"The cochlear implant is one of the most successful of all neural prostheses developed to date.**
> **WHO, 2021**

2022

*WHO definition of severe to profound hearing loss.

COCHLEAR IMPLANTS - ADDRESSING THE CRISIS IN HEARING CARE

COCHLEAR IMPLANTS CHANGE LIVES:

For people with severe to profound hearing loss, living with their disability can be extremely difficult.

Cochlear implants can change lives. In adults they have been shown to improve quality of life, reduce depression, improve employability and cognitive functioning. *(Buchman et al; 2020; Mosnier et al, 2018; Monteiro et al, 2012 ; Olze et al, 2011;).*

> **I feel that so much of my previous life has been restored, regaining my pride and ability to contribute actively in society on an equal basis. Adult CI user**

WHO WE ARE

- A community of CI patient associations from the five Nordic countries, including representation from EURO-CIU and CIICA
- Our aim is to increase access to the provision of CI and lifelong services in the Nordic countries.

UNADDRESSED HEARING LOSS COSTS SOCIETY MONEY

- Socio economic costs to Europe of hearing loss exceed 216 billion Euros per year. *(Shield 2019; www.hear-it.org).*

COCHLEAR IMPLANTATION HAS BEEN SHOWN TO BE COST-EFFECTIVE

- Cochlear implantation for adults has been proven cost effective in a Nordic setting. The recent publication "The cost-effectiveness of Cochlear implants in Swedish adults." *(Gumbie et al, 2021)* shows that:
  - Cochlear implants for adults are cost effective.
  - Cochlear implantation is as cost effective as knee replacement.
- However, in the Nordic countries, society spends far less on CI compared to knee replacements - only 600 adult CI surgeries vs. 46,000 knee replacements annually. *(Country registries, see links below).*
- For cochlear implants, estimations based on actual costs in a high-income setting showed a return of 2.59 International dollars for every 1 dollar invested. *(WHO).*
- In one recent European study, adults and seniors with progressive profound hearing loss and a CI had a positive outcome net benefit of €275,000 and €76,000, respectively. *(Neve et al, 2020).*

NOTES

Buchman et al; Unilateral Cochlear Implants for Severe, Profound, or Moderate Sloping to Profound Bilateral Sensorineural Hearing Loss: A Systematic Review and Consensus Statements. JAMA Otolaryngol Head Neck Surg. 2020;146(10):942-953. doi:10.1001/jamaoto.2020.0998.

Engdahl et al, Better Hearing in Norway: A Comparison of two HUNT Cohorts 20 Years Apart. Ear & Hearing 2021; vol. 42, no. 1, 42–52.

Gumbie et al. (2021) The cost-effectiveness of Cochlear implants in Swedish adults. BMC Health Services Research (2021) 21:319.

Lamb, B. and Archbold, S .Why Hearing Well Matters for Healthy Ageing Dec 2021 www.ciicanet.org/resources.

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Mertens et al (2020) Cognitive Improvement After cochlear implantation in Older Adults with Severe or Profound Hearing Impairment. A Prospective, Longitudinal, Controlled, Multi Center Study. Ear and Hearing.

Monteiro E, Shipp D, Chen J, Nedzelski J, Lin V. J ; (2012) Cochlear implantation: a personal and societal economic perspective examining the effects of cochlear implantation on personal income. Otolaryngol Head Neck Surg 2012; 41 (suppl 1): S43–8.

Mosnier I et al. (2018) Long-Term Cognitive Prognosis of Profoundly Deaf Older Adults After Hearing Rehabilitation Using Cochlear Implants J Am Geriatr Soc. 2018 Aug;66(8):1553-156.

Neve, Olaf M et al., (2021) Cost-benefit Analysis of Cochlear Implants: A Societal Perspective. Ear & Hearing.

Olze H et al. (2011) Cochlear implantation has a positive influence on quality of life, tinnitus, and psychological comorbidity. The Laryngoscope. Oct;121(10):2220-7.

Registries for knee replacement surgery:

www.myknee.se

http://nrlweb.ihelse.net/.

https://thl.fi/sv/web/thlfi-sv/statistik-och-data/material-och-tjanster/statistikens-kvalitet-och-principer/kvalitetsbeskrivningar/hoft-och-knaproteser

https://www.sundhed.dk/content/cms/99/4699_dkr-arsrapport-2020_offentliggorelse.pdf

Shield, B. (2019) Hearing Loss – Numbers and Costs. Evaluation of the social and economic costs of hearing impairment. A report for Hear-It AISBL. www.hear-it.org/sites/default/files/2021-01/Hear-it%20Report%20Hearing%20Loss%20Numbers%20and%20Costs%202019.pdf.

Swedish Quality register of otorhinolaryngology podium presentation during "Tema Hörsel 2018".

Turunen-Taheri S K et al., (2019) Rehabilitation of adult patients with severe-to-profound hearing impairment – why not cochlear implants?, Acta Oto-Laryngologica, 139:7, 604-611, DOI: 10.1080/00016489.2019.1607976.

West et al, Cochleaimplantation til voksne. Ugeskr Læger 2020; 182: V04200214.

WHO World Hearing Report 2021. www.who.int/publications/i/item/world-report-on-hearing.

WHO Hearing Screening Handbook (2021) www.who.int/

Do you want to know more?

Kuuloliitto ry

HLF Hørselshemmedes Landsforbund Din hørsel - vår sak

hrf. Hörselskadades Riksförbund

HÖRSELPLANTORNA i Sverige

HEYRNARHJÁLP

høreforeningen

EUROCIU EUROPEAN ASSOCIATION OF COCHLEAR IMPLANT USERS a.s.b.l.

CIICA COCHLEAR IMPLANT INTERNATIONAL COMMUNITY OF ACTION

Barnplantorna Riksförbundet för Barn med Cochleaimplantat och Barn med Hörapparat