TOWARDS FUTURE-PROOF CI HEALTHCARE:

Smarter Pathways and Remote Solutions



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Dr. H.F.E. van der Toom

23-10-2026

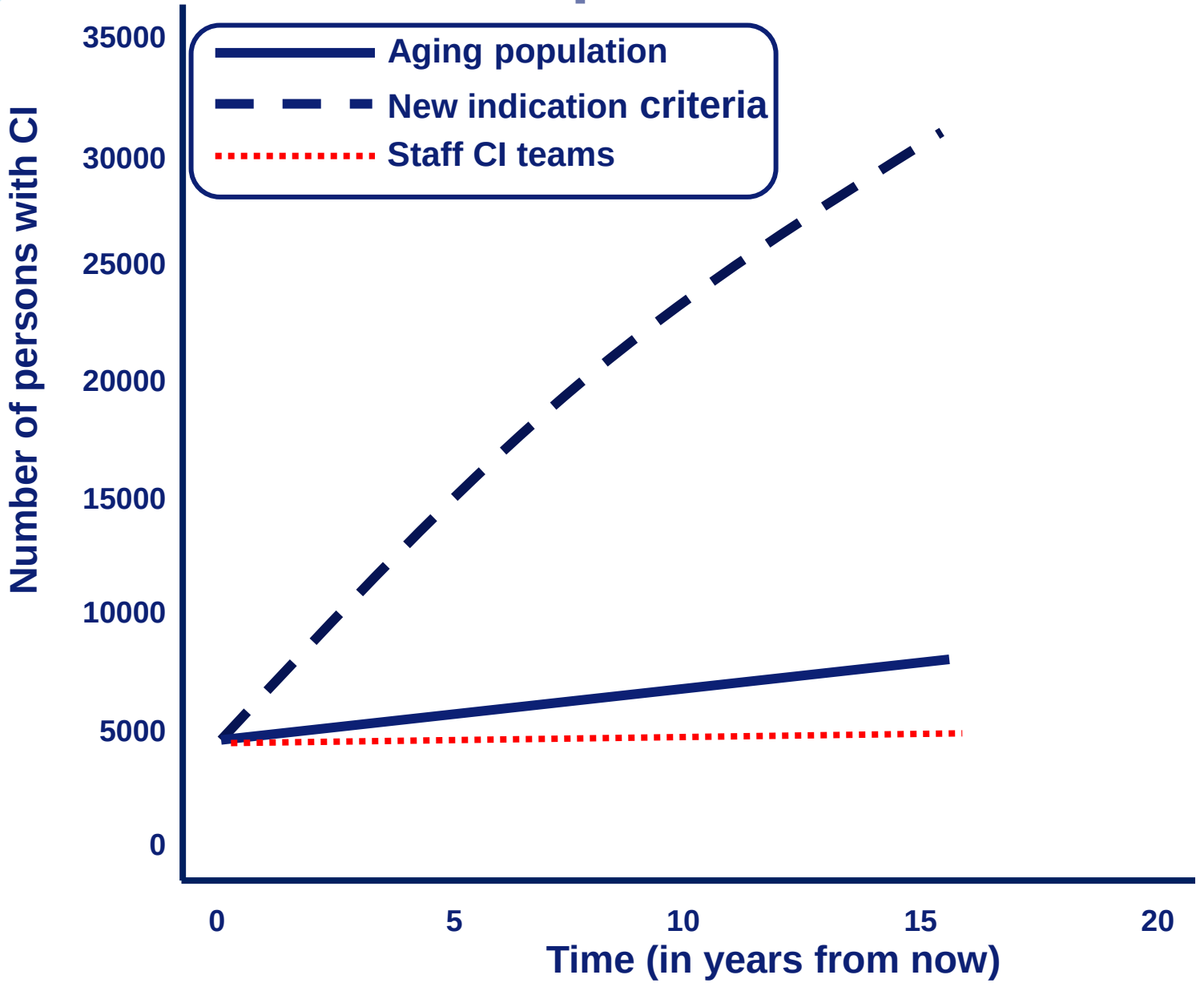
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CI-TEAM ROTTERDAM



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Number of persons with CI in the Netherlands



Nijmeijer et al. (2023) Impact of Expanding Eligibility Criteria for Cochlear Implantation – Dynamic Modeling Study, Laryngoscope

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We need change

CI care pathway



LUCY



Selection



Operation



Rehabilitation



Aftercare

STANDARD CI-INTAKE



At home

Questionnaires

Information flyers

1 Audiometry

2 CT-scan

3 Social worker

4 Speech therapist

5 Advice regarding CI by otologist and audiologist

6 Preoperative screening anesthesia

Day 1

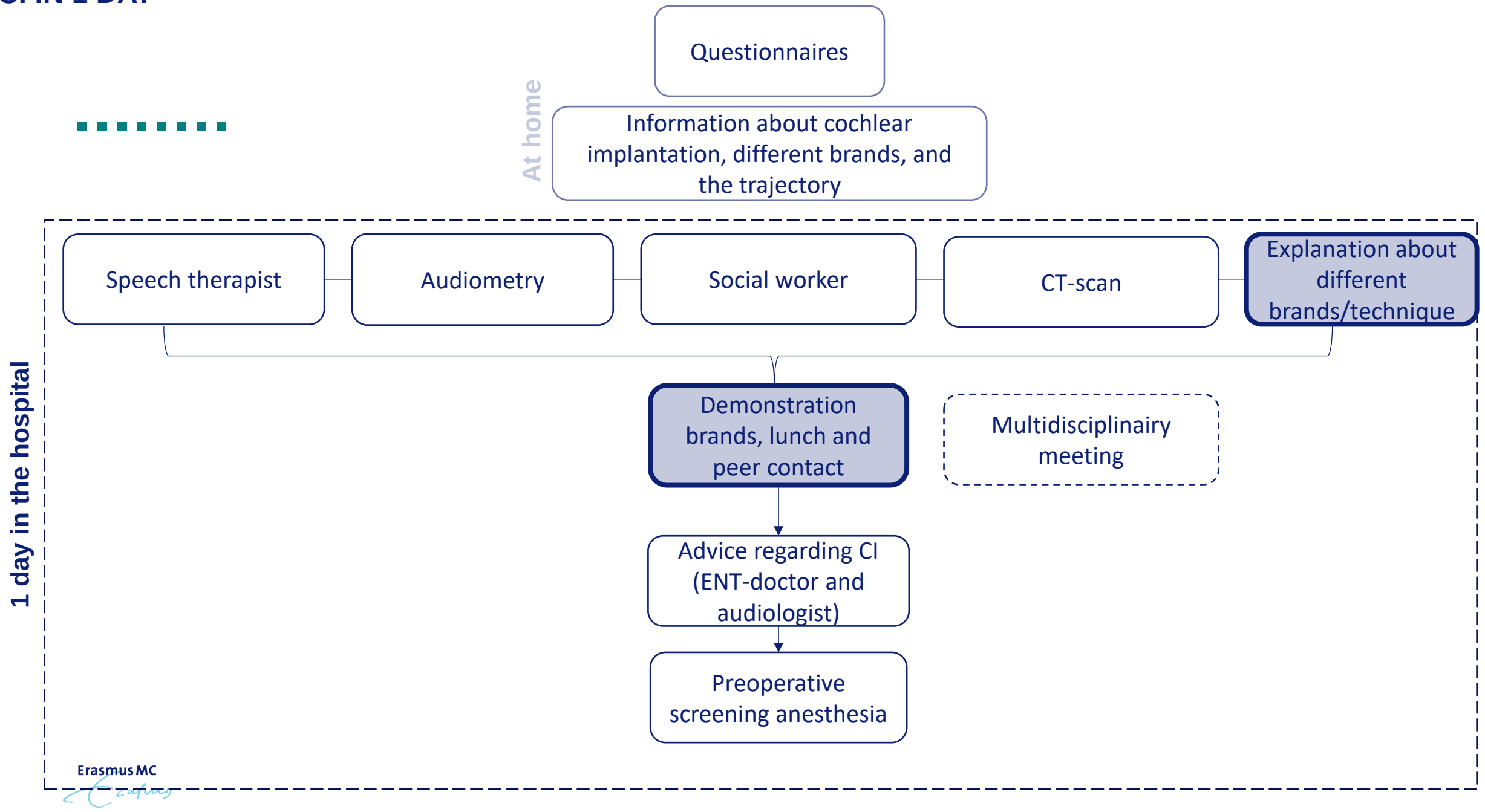
Day 100

Intake audiologist and otologist

Other trajectory

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CI IN 1 DAY


Questionnaires
At home
Information about cochlear implantation, different brands, and the trajectory
1 day in the hospital
Speech therapist
Audiometry
Social worker
CT-scan
Explanation about different brands/technique
Demonstration brands, lunch and peer contact
Multidisciplinairy meeting
Advice regarding CI (ENT-doctor and audiologist)
Preoperative screening anesthesia
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CI IN 1 DAY





Vragenlijsten

Thuis

Informatie over cochleaire implantatie, het proces en de verschillende merken

1 Eerste fase Gehoortesten Intake KNO-arts

2 CT-scan

3 MMW

4 Logopedist

5 Eindgesprek (KNO-arts en audioloog + uitleg over de verschillende merken

6 Preoperatieve screening anesthesie

Dag 1

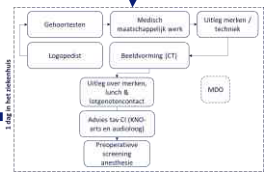
Dag 100



Dag 1

Dag 100

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CI IN 1 DAY





€ 175,-

185 minutes travel time





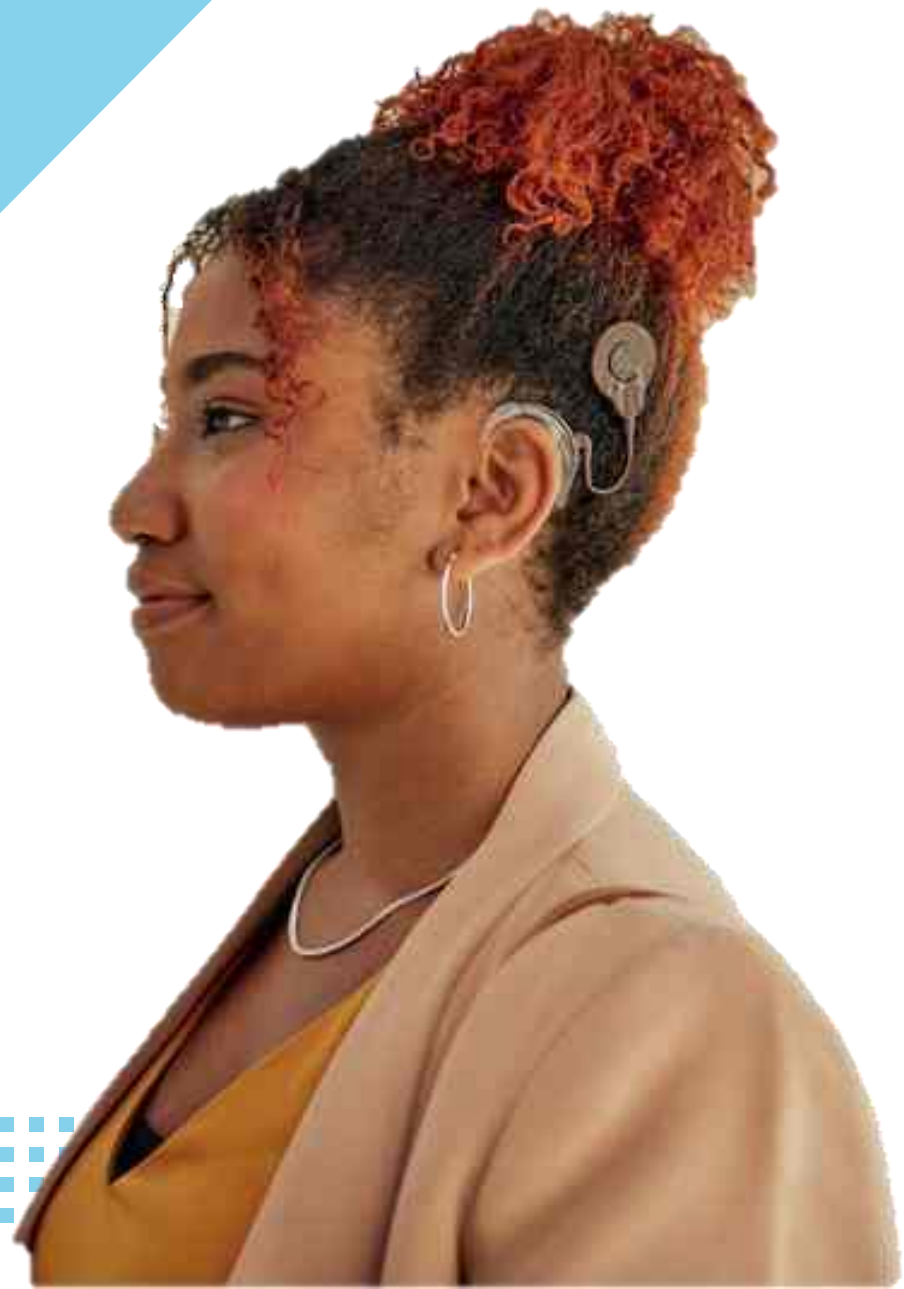
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CI IN 1 DAY

NOT FOR EVERYONE

GOOD REFERRALS

TEAM EFFORT



CI IN 1 DAY

HIGHLY APPRECIATED

EXTRA QUALITY

MORE EFFICIENT

GREENER

Homans et al.(2024)

Homans et al.(2024)



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Selection



Operation



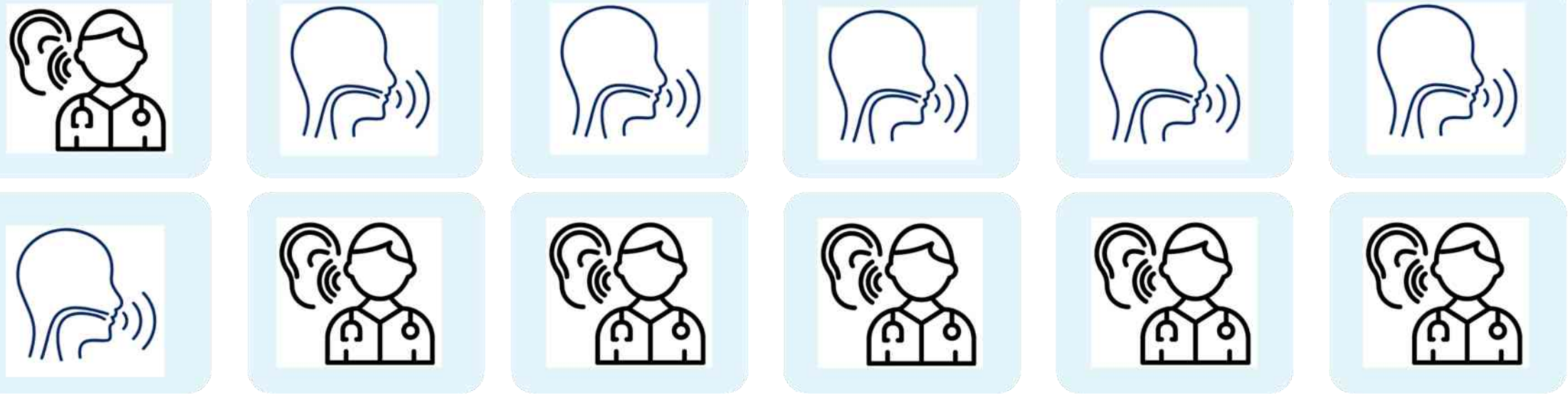
Rehabilitation



Aftercare

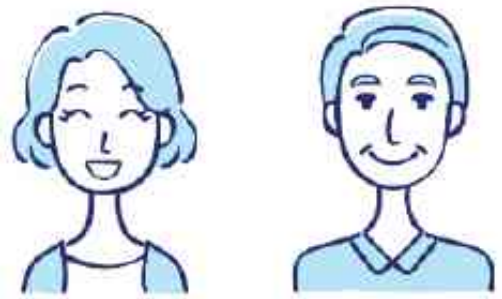
CI care pathway (rehabilitation)

T1	T2	T3	T4	T5	T6
2 weeks	1 month	1.5 month	3 months	6 months	1 year



Changes in stimulation levels during the first year after cochlear implantation

Study design



Retrospective cohort:

01/01/2019 - 29/02/2024

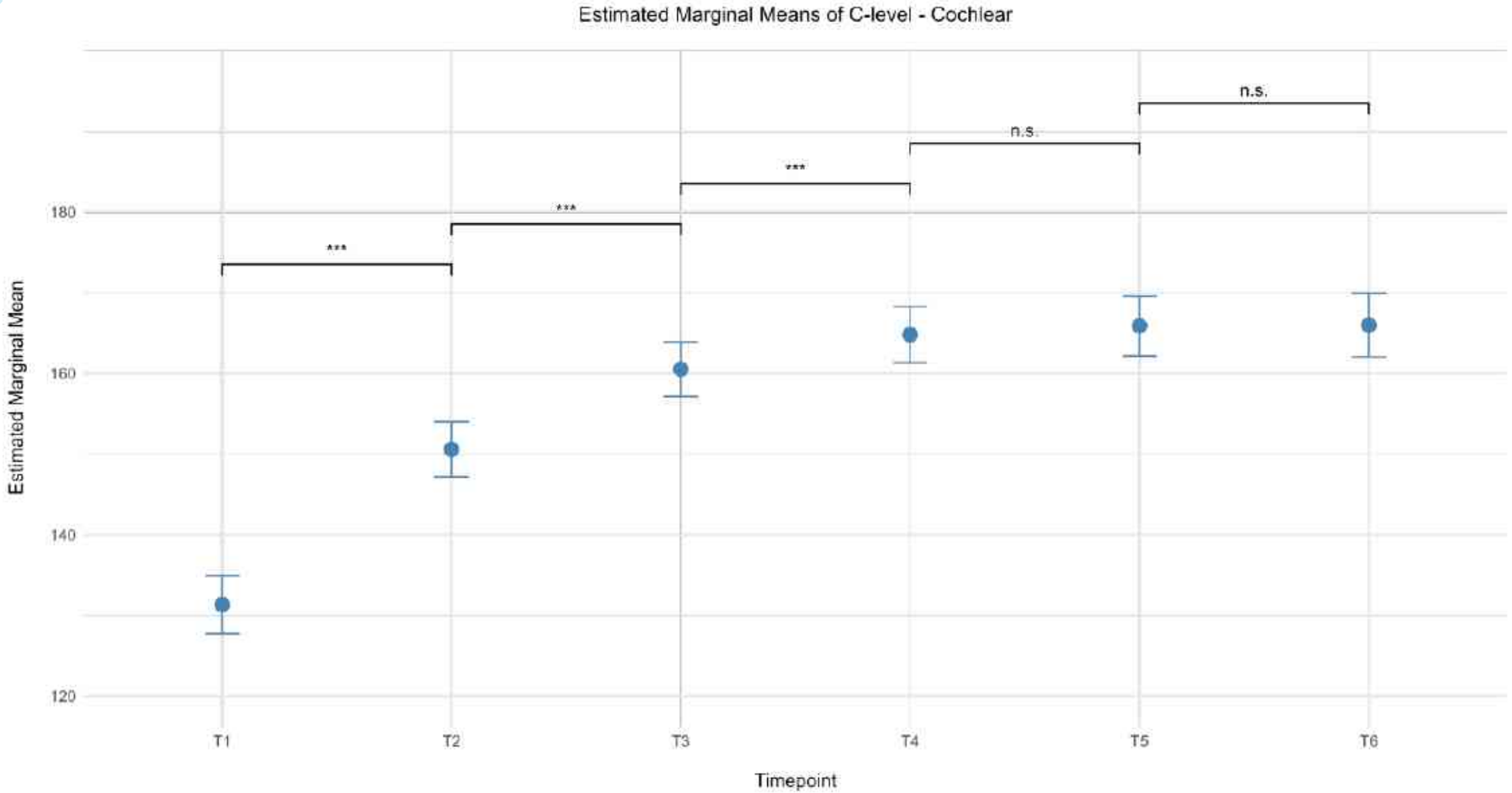


94 Advanced Bionics™ CIs &

89 Cochlear™ CIs

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Change per appointment: C-levels



STIMULATION LEVELS STABILIZE EARLY

SIMILAIR TRAJECTORIES BETWEEN TWO BRANDS

OPTIMIZE CI REHABILITATION

Hussain et al.(2026)



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Next steps?

CI care pathway (rehabilitation optimalization)

T1	T2	T3	T4	T5	T6
2 weeks	1 month	1.5 month	3 months	6 months	1 year













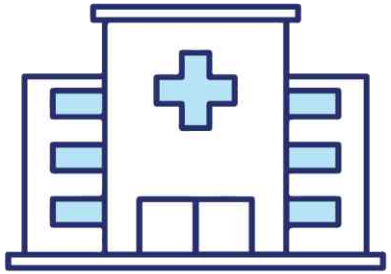






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Procedure











CIRCUIT



NO DIFFERENCE IN PERFORMANCE

NO DIFFERENCE IN STIMULATION LEVELS

POSITIVE CI-USERS

JAN 2027 – ROUTINE CARE

Homans et al.(2025)

Homans et al.(2026)



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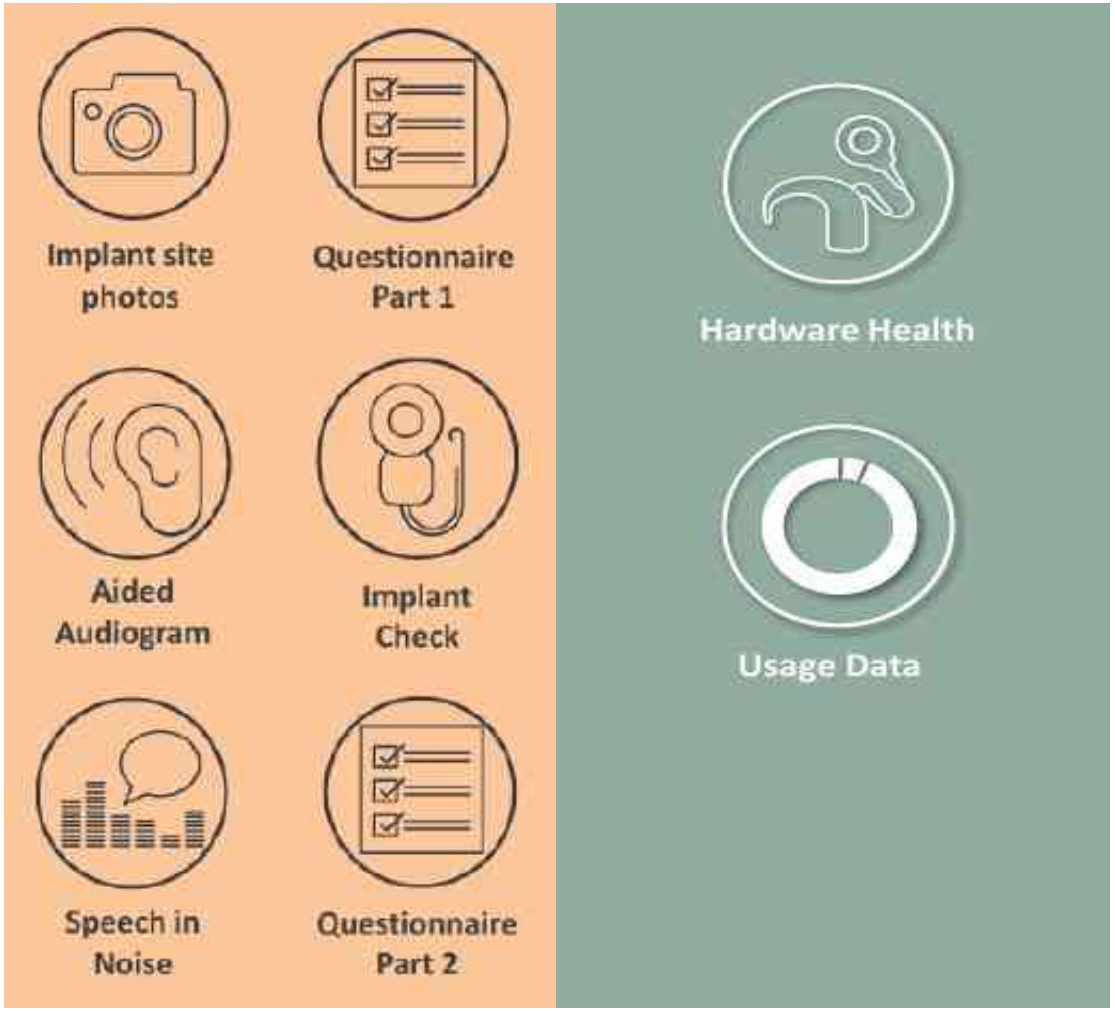
CI care pathway (rehabilitation optimalization)

T1	T2	T3	T4	T5	T6
2 weeks	1 month	1.5 month	3 months	6 months	1 year
	REMOTE			REMOTE	
					

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Remote check





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BUILDING TOMORROW'S CI CARE, TOGETHER



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Call for CI audiologists!

Interested in shaping the future of remote CI care?
Scan the QR code to register your interest.

Call for CI users!

Interested in shaping the future of remote CI care?
Scan the QR code to register your interest.