ASX / MEDIA RELEASE

10 MAY 2019

Cochlear Capital Markets Day

Cochlear Limited, Sydney, 10 May 2019 (ASX:COH): Cochlear Limited is today hosting analysts to its annual Capital Markets Day at its global headquarters at Macquarie University. A copy of the management presentations is attached and includes:

- Overview of strategic priorities
  - Dig Howitt
  - CEO & President

- Cochlear’s innovation pipeline
  - Jan Janssen
  - Chief Technology Officer

- Remote check
  - Craig Sharp
  - Group Product Manager, Connected Care

- Building a market access capability
  - Fernando Gonzalo
  - Head of Global Market Access and Health Economics

- Strengthening links to the hearing aid channel
  - Michele Fusco
  - Vice President, Strategic Growth Channels
  - Cochlear Americas

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Strategic priorities
Dig Howitt  CEO & President
Cochlear Capital Markets Day – 10 May 2019

Agenda: Focus on adults & seniors

Overview of strategic priorities  Dig Howitt
Cochlear’s innovation pipeline  Jan Janssen
Remote check  Craig Sharp
Building a market access capability  Fernando Gonzalo
Strengthening links to the hearing aid channel  Michele Fusco
Panel discussion  All presenters
Cochlear’s mission

We help people hear and be heard.

We **empower** people to connect with others and live a full life.

We **transform** the way people understand and treat hearing loss.

We **innovate** and bring to market a range of implantable hearing solutions that deliver a lifetime of hearing outcomes.

Global footprint

- **550,000+** implants sold
- **A$160m+** in annual R&D investments
- **A$1.3b+** in annual sales revenue
- **3,500+** employees around the world
- **30+** countries with direct operations
- **100+** collaborative research programs worldwide
- **5** key manufacturing sites
Strategic priorities

- Retain market leadership
  - Market-leading technology | World-class customer experience
- Grow the hearing implant market
  - Awareness | Market access | Clinical evidence
- Deliver consistent revenue and earnings growth
  - Invest to grow | Operational improvement | Strong financial position

Commitment to technology leadership

R&D investment strengthens our **market-leading technology** position

- Continued R&D investment at ~12% of revenue
- Product and service R&D spans:
  - Implants & sound processors
  - Sound coding
  - Clinical & surgical tools
- Future focus:
  - Hearing outcomes
  - Lifestyle
  - Hearing indications
  - Connected care

$1.7bn+ investment in R&D since listing
Market-leading product portfolio

Cochlear implants (88% of revenue)

- Cochlear™ Nucleus® Profile™ Plus with Slim Modiolar Electrode (CI632)
- Cochlear™ Nucleus® Kanso® Sound Processor (CP950)
- Cochlear™ Nucleus® 7 Sound Processor (CP1000)
- Cochlear™ Nucleus® Smart App

Acoustic implants (12% of revenue)

- Cochlear™ Baha® 5, Baha 5 Power and Baha 5 SuperPower
- Cochlear™ Baha® SoundArc
- Cochlear™ Baha® Smart App
- Cochlear™ Carina® System

Deepening connection to customers

Providing a world-class customer experience empowers people to connect with others and live a full life and creates a brand halo for candidates

- Meaningfully engage with more recipients
- Create world-class customer experiences
- Drive upgrade penetration
- Create new services and revenue
Strategies to improve awareness and access vary by segment

Grow the hearing implant market

- Adults & seniors
  - Developed markets
  - Current penetration: 3%
  - Increase penetration

- Children
  - Developed markets
  - Current penetration: 60%
  - Grow share

- Children
  - Emerging markets
  - Current penetration: 10%
  - Increase penetration, funding and affordability

* Estimate based on information available to Cochlear

Growth is shifting to under-penetrated segments

- Children in developed markets
  - Focus on children
  - Neonatal hearing screening

- Children in emerging markets
  - Funding expands in emerging markets as awareness of cochlear implants grows and wealth increases

- Adults & seniors in developed markets
  - Greater uptake by adults & seniors as awareness grows and evidence builds connecting hearing with healthy ageing

Cochlear implant growth drivers

For adults & seniors, the goal is to build a clear and consistent referral pathway

**Candidate**
- **Goal**: Motivated to treat hearing loss with the best available solution
- **Initiatives**:
  - DTC

**Non-CL professional**
- **Goal**: Understands the indications for CI candidacy and when to refer
- **Initiatives**:
  - CPN, Sycle
  - Standard of care

**CI professional**
- **Goal**: Counsels objectively and services efficiently
- **Initiatives**:
  - Standard of care

**Payer**
- **Goal**: Understands the value of treating severe to profound hearing loss and the value and effectiveness of CI relative to alternatives
- **Initiatives**:
  - Market access
  - Standard of care

Three programs for driving growth of the adults & seniors segment

**DTC**
- Continue to expand successful direct-to-consumer marketing activities

**HA channel referrals**
- Build referrals from the hearing aid and ENT channels

**Standard of care**
- Support initiatives to deliver a consistent treatment pathway for adults with severe to profound hearing loss
Direct to consumer marketing

DTC builds awareness of cochlear implants directly with consumers

- **Target market**: highly motivated CI candidates seeking a better hearing solution than high powered hearing aids
- **Provides a clear pathway to care**: information, links candidates to surgeons, clinicians and volunteers
- **Drives conversion**: Meaningful contributor to sales in the US, with deeper penetration of senior adults than other markets (6% vs 3% avg)
- **Opportunity to continue to drive surgeries in existing markets and expand activities**: now in 15 markets
- **DTC grows the market**: ~90% of leads have never been to a CI clinic

Hearing aid channel referrals

CPN and Sycle aim to drive referrals from the hearing aid channel, where the majority of CI candidates are

- **Why hearing aid audiologists don’t refer**:
  - Don’t know indications for CI
  - Don’t know where to refer
  - CI is not part of current clinical practice
- **Key ways to build referrals from the HA channel**:
  - **Cochlear Provider Network** – links surgeons with hearing aid clinics
  - **Sycle** – educates and incorporates CI into the current workflow
  - **Education** – demonstrating the effectiveness of implantable solutions relative to hearing aids for:
    - Hearing performance
    - Quality of life
    - Cognition
Standard of care

Increase penetration in adults & seniors

Standard of care initiatives aim to establish a consistent process for diagnosing and referring CI candidates by all healthcare professionals

- **Challenge**
  - There is no consistent treatment pathway for adults with severe to profound hearing loss
  - Low awareness of indications amongst professionals – ENT surgeons and audiologists

- **Evidence is building to support the establishment of a clinical pathway**
  - Good hearing is an essential part of healthy ageing
    - Cognition benefits
  - Effectiveness of cochlear implants relative to hearing aids
  - Quality of life improvements
  - Treating age related hearing loss is cost effective

Good hearing is an essential part of healthy ageing

- Cognitive decline
  - Hearing loss associated with accelerated cognitive decline and dementia in older adulthood

- Depression
  - Significant association between hearing impairment and moderate to severe depression

- Falls
  - Higher risk of dizziness causing falling

- Social isolation
  - Hearing loss linked to withdrawal from social interactions, which can have a significant impact on psychological well-being and physical health

- Ability to work
  - Hearing loss can affect the ability to work or stay in the workforce

- Loss of independence
  - Seniors with hearing loss less likely to be able to self-care
Cognition benefits

In this study, >90% of recipients with mild cognitive impairment pre surgery, stabilised or improved cognition

* Mosnier et al, The American Geriatrics Society, 2018

Effectiveness of cochlear implants relative to hearing aids

65% point improvement in speech recognition with cochlear implants over hearing aids

### Quality of life improvements

**>10x improvement in satisfaction with hearing performance with cochlear implants over hearing aids**

<table>
<thead>
<tr>
<th>Ability to understand what is said on TV</th>
<th>Bilateral Hearing Aids</th>
<th>Smart Bimodal</th>
</tr>
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### Treating age related hearing loss is cost effective

- The cost effectiveness of cochlear implantation in children is well understood
- Recent research suggests CI is also highly cost effective in adults*

<table>
<thead>
<tr>
<th>ICER – incremental cost effectiveness ratio</th>
<th>CI vs. Hearing Aid £ per QALY</th>
<th>Cost effective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults, 18+</td>
<td>11,988</td>
<td>✔️</td>
</tr>
<tr>
<td>Adults, 65+</td>
<td>15,293</td>
<td>✔️</td>
</tr>
</tbody>
</table>

Building consensus on the treatment pathway

- **Progress in establishing a consistent CI pathway:**
  - In March 19, a Steering Committee and Panel of 25 audiologists and ENT surgeons across 13 countries, chaired by Dr Craig Buchman, Washington University, reached a consensus that lays the foundations for the creation of universal clinical practice guidelines for cochlear implantation including patient identification, referral, implantation and rehabilitation.

- **Next steps:**
  - Consensus statement publication in a high impact medical journal.
  - Consensus paper starts to influence awareness and referral behaviour.
  - Engagement of professionals and community in change.
  - Development of in country treatment guidelines in collaboration with society/policy makers.
  - Adoption of consensus recommendations into formal clinical practice guidelines.
  - Supports market access efforts with payers and policy makers.

The goal is to build a clear and consistent referral path from hearing aids to cochlear implants

**Candidate**

**Goal:** Motivated to treat hearing loss with the best available solution.

**Initiatives:**
- DTC

**CI professional**

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**Payer**

**Goal:** Understands the value of treating severe to profound hearing loss and the value and effectiveness of CI relative to alternatives.

**Initiatives:**
- Market access
- Standard of care
Cochlear is investing operating cash flows to drive growth

Invest to grow
- Building awareness and access to our products requires multi-year investment in sales, marketing and R&D activities
- Through disciplined investment, we will aim to maintain the net profit margin

Operational improvement
- Optimising cost of production strengthens our competitive position
- Using scale to generate efficiency gains to reinvest in market growth activities

Strong financial position
- Strong cash flow generation funds growth
- We aim to maintain the strong balance sheet position and continue to target a dividend payout of around 70% of net profit

Revenue growth drivers

Cochlear implants
- Growing awareness and uptake by adults & seniors
- New products driving market growth and market share
- Emerging market expansion

Services
- Growing recipient base
- Greater connectivity and engagement with recipients
- Nucleus® 7 Sound Processor and Nucleus Kanso® Sound Processor upgrades

Acoustics
- Baha® 5, Power and SuperPower Sound Processor and Baha SoundArc
- Market expansion
References


Cochlear’s innovation pipeline
Jan Janssen  Chief Technology Officer
Cochlear Capital Markets Day – 10 May 2019

Cochlear’s benchmark cochlear implant portfolio

| Nucleus® Profile™ Plus Series cochlear implant (CI632) | Nucleus® Kanso® Sound Processor | Nucleus® 7 Sound Processor |
| Benchmark in size, implant reliability and neural interface | Benchmark in OTE hearing performance & wireless connectivity | Benchmark in BTE size, smartphone connectivity and hearing performance |

| Slim Modiolar electrode | 3.9 mm | | 25% Smaller |
Cochlear Nucleus implant history

Since 1997, Cochlear Nucleus implant users have access to 1.5 T (with magnet removed) and 3 T (with magnet removed, excluding USA) with the CI24M and CI24R devices.

Since 2005, Cochlear Nucleus implant users have access to 1.5 T MRI (without magnet removed but with head bandage) and 3 T MRI (with magnet removed).

Ability to remove the magnet is also important for specific situations.

Implant Model Number Legend:
CI5xx: Profile implant
CI6xx: Profile Plus implant
CIx12: Contour Advance electrode
CIx22: Slim Straight electrode
CIx32: Slim Modiolar electrode
E.g.: CI522, CI532 => CI622, CI632

Cochlear™ Nucleus®
Profile™ Plus Series
Implant
**Cochlear™ Nucleus® Profile™ Plus Series implant**

**Designed for simpler MRI**
More convenient MRI scans at 1.5 and 3.0 Tesla without the need for magnet removal. No need to apply a bandage and splint for 1.5 and 3 T MRI scan.

**Our dedication to implant reliability**
Built on Cochlear’s unrivalled reliability record of the Profile Series Implant¹,²,³

**The thinnest cochlear implant platform**
At only 3.9mm, it is the thinnest in the world⁴

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4. Data on file
Closing the gap … Hearing outcomes

- Rehabilitation Time & Effort
- Word Understanding
- Sound Quality
- Listening Effort
- Timbre Perception
- Sound Localisation
- Speaker Identification
- Music
- Hearing in challenging Listening Environments

Hearing Outcomes

How to maximise hearing outcomes

- Closest to the hearing nerve
- Minimise cochlear trauma
- High number of independent channels
Peri-modiolar electrodes deliver electrical stimulation closer to the hearing nerve

"At close electrode-neuron distances, excitation patterns become more spatially localized..."*


Slim Modiolar (CI532) – Key features

- **CLOSE TO THE HEARING NERVE FOR OPTIMAL HEARING PERFORMANCE**
- **CONSISTENT AND COMPLETE SCALA TYPANI PLACEMENT**
- **ATRAUMATIC DESIGN TO PROTECT & PRESERVE THE DELICATE INNER EAR**
- **SMOOTH AND EASY INSERTION VIA ROUND WINDOW OR COCHLEOSTOMY**
- **RELOADABLE**
Better hearing performance and sound quality with 22 electrodes

Coghlan et al, JASA 2017(*)

Berg et al, JASA 2019(**)

*(Cochrane et al., Re-examining the relationship b/w number of cochlear implant channels and maximal speech intelligibility, Journal of the Acoustic Society of America, December 2017)


Hearing better faster with CI532 electrode & Nucleus 7 Sound Processor

Freedom (N=71) 2005

@ 3 months, 29% of subjects scored above 60%

N5 (N=41) 2010

@ 3 months, 33% of subjects scored above 60%

532;(***) (N=80) 2019

@ 3 months, 51% of subjects scored above 60%


(***)Preliminary data on file: Cochlear sponsored, Clinical Evaluation of the Cochlear Nucleus® CI532 Cochlear Implant in Adults (CLTD5685) Jan 2019
Hearing better faster with CI532 electrode & Nucleus 7 Sound Processor

At 3 months, more people are hearing better faster by combining earlier implantation with CI532 and Nucleus 7

The thin form factor of the Slim Modiolar electrode facilitates atraumatic insertion and provides closer and more consistent peri-modiolar placement which leads to faster, better and more consistent outcomes as demonstrated in 2 clinical studies.

RVEEH study, 2018 (*)

532(**) (N=90)
2019

*Shaul et al; Scalar localization of peri-modiolar electrodes and speech perception outcomes. Journal of Laryngology & Otology 2017
**Preliminary data on file: Cochlear sponsored, Clinical Evaluation of the Cochlear Nucleus® CI532 Cochlear Implant in Adults (CLTD5685) Jan 2019

Closing the gap … Hearing in noise

Hearing in noisy environments is a bigger challenge for Cochlear Implant users compared to Normal Hearing listeners (on average 15 dB difference in Speech Reception Threshold)
Closing the gap ... Hearing in noise

NEW for Nucleus 7 Sound Processor: ForwardFocus - reduces noise from behind
NEW for Nucleus 7 Sound Processor:
ForwardFocus - reduces noise from behind

- 4 TB roving in the rear half; \( n=24 \)
- 2.9 dB mean SRT improvement
- 88% recommended ForwardFocus in cafes and restaurants
- 75% satisfied with ForwardFocus for listening in noise
- 52% recommended ForwardFocus for use in the car


Nucleus 7 Sound Processor:
Binaural Audio Streaming

Nucleus 7 Sound Processor

Linx 3D or Enzo 3D Hearing Aid
Nucleus 7 Sound Processor: Binaural Audio Streaming

Nucleus 7 Sound Processor

Linx 3D or Enzo 3D Hearing Aid

Phone Clip

Nucleus 7 Sound Processor

Audio Streaming for Hearing Aids (ASHA)
coming soon
## Hearing satisfaction with CI532 electrode and Nucleus 7 Sound Processor

### Bilateral Hearing Aids

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### Smart Bimodal

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<td>Nucleus cochlear implant + Resound hearing aid</td>
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>10x improvement in hearing performance satisfaction with cochlear implants over hearing aids

*Preliminary data on file: Cochlear sponsored, Clinical Evaluation of the Cochlear Nucleus® CI532 Cochlear Implant in Adults (CLTD5685) Jan 2019

## How to maximise hearing preservation

- **Atraumatic, thin electrode design**
- **Enhanced Diagnostic & Surgical Tools**
- **Drug/Device Combination Therapy**
Structural preservation with Slim Modiolar electrode (CI532)

- **Aschendorff et al (n=44)**
  - No intracochlear trauma
  - 100% scala tympani placement
  - Consistent and close modiolar proximity

- **US Multicenter Study (n=100)**
  - 24 Surgeons across 13 centers
  - 3D CT reconstructions completed
  - 91% of the electrode contacts in Scala Tympani

- **Shaul et al (n=18)**
  - 100% scala tympani placement

- **Ramos et al (n=10)**
  - 100% scala tympani placement

Multiple studies indicate consistent atraumatic placement with Slim Modiolar electrode (CI532)

ElectroCochleography (ECochG): “unblinding” the electrode insertion process

ElectroCochleography (ECochG) is a measurement method that captures a number of electrical signals from the cochlea, including the cochlear microphonic (CM) which is the electrical response from the hair cells which follows the waveform of the acoustic sound input; it is as though the cochlea is acting as a microphone.

The cochlear microphonic (CM) signal may be impacted during or after electrode insertion if the electrode would touch the basilar membrane; hence the provide real-time feedback during the electrode insertion process.
NEW – Cochlear™ Research Platform ECochG “unblinding” the electrode insertion process

- High responsiveness (~ 3/second)
- No need for extra recording hardware
- No external acoustic equipment
- Easy to use, integrated system

Future focus areas

Hearing Outcomes

Lifestyle

Hearing Experience

Hearing Indications

Connected Care
Making life easy

Nucleus 6 system

Nucleus 7 system

Nucleus Smart App

MiniMic 2

MiniMic 2+

TV Streamer

Nucleus® Smart App

Volume
Program
Audio Sources

Tip
Invite a friend for coffee!

Find My Processor

Your processor is in range!
First for iPhone. First for Android.

With the Nucleus Smart App patients can control their Nucleus 7 Sound Processor directly from a smartphone. iPhone – iPad – iPod Touch

Now also for Android.

Why develop a totally implantable cochlear implant (TICI)?

- Recipients and Professionals ask for it! Why?
- Quality of life – ability to hear 24/7 in all environments
  - Feeling safer: detect alarms & warnings in all environments
  - Freedom: to pursue life with fewer restrictions
  - Emotional benefit: feeling confident for oneself or loved ones
  - Aesthetic benefit: can be used without the external processor
- Hearing performance in quiet and in noise significantly degraded when using invisible hearing
- Usability strongly affected by the presence of body noise (breathing, swallowing, eating, ...)
- Due to these issues the Melbourne recipients do not use the invisible hearing as the “standard” hearing mode,

However ...

- Today, all 3 recipients use the invisible hearing mode for part of the day in particular situations and activities
- None were prepared to give up the invisible hearing function:
  - “I’m never deaf anymore”
  - “Freedom from deafness”

Briggs et al (2005)

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2nd generation TICI research device (2018)

- 2nd generation TICI investigational device leverages Carina® implantable microphone technology
- Feasibility clinical study with 11 subjects announced October 2018
- 5 subjects have been implanted
- The outcomes of this study will influence the next steps towards a commercial TICI
- While good progress is being made, the commercial availability of a TICI is likely years away
Summary
Product innovation focus areas

- Nucleus Profile Plus Series cochlear implant (CI600): enhanced MRI compatibility
- Hearing Outcomes
  - Slim Modiolar (CI532/632) + Nucleus 7 Sound Processor: hearing better faster
  - Nucleus 7 ForwardFocus: hearing better in noise
  - Nucleus 7 Audio Streaming: ASHA compatibility (coming soon)
  - New Cochlear Research Platform ECochG capability: hearing preservation
- Lifestyle
  - Nucleus Smart App Android
  - TICI clinical study update
- Connected Care
  - Remote Check: in pilot roll-out stage

Hear now. And always.
Remote Check Overview

About Remote Check

Remote Check is designed to be a convenient, at-home testing tool that allows patients with a Cochlear™ Nucleus® 7 Sound Processor to complete a series of hearing tests at home using their mobile device. A clinician can then review those results and determine whether or not the patient needs to come into the clinic for an in-person visit.

With Remote Check, hearing health professionals can:

- Reduce unnecessary visits for patients who are on track
- Spend more quality time with patients who have complex needs
- See more patients who are waiting for an initial candidacy assessment
- Reduce the burden on patients by offering a convenient, time-saving option of care

*Disclaimer: Remote Check is not TGA approved and is not currently available for use in Australia.*
How It Works

Remote Check patient activities

Remote Check activities are designed to take as little as 15 minutes for patients to complete, and about 10 minutes for a health care professional to assess.*

*Based on internal Cochlear data. Some users may take longer than 15 minutes and 10 minutes, respectively. Data on file.

How It Works

Professional assessment via myCochlear.com

Patient results are available via myCochlear.com, where a snapshot of the patients’ hearing health is presented in an easy-to-read dashboard.

With test results securely available on the web, professionals can quickly determine whether each patient is progressing well or needs an in-clinic visit for further assessment.
UK Pilot Study – Remote Check

- NHS operates on a capitated funding model
  - Fixed price for annual maintenance of patients after initial cochlear implant surgery
  - Fee is static regardless of number of visits

- UK recently expanded eligibility criteria for cochlear implants
  - New NICE criteria doubles the total addressable market
  - Additional strain will be placed on clinics

- Remote Check can help relieve capacity constraints
  - Help eliminate unnecessary visits
  - Utilise clinic time for patients who need it most

- Pilot study measuring efficacy and efficiency of Remote Check

Potential Patient Impact of a New Care Model

What is the real cost of an appointment?

Patients affected: 87% 59% 3% 15%

- Travelling cost
- Parking
- Accommodation
- Lost wages

Results based on a market research study conducted by Cochlear Ltd (n= 126). Data on file.
Potential Clinic Impact of a New Care Model

- **Facilitates category growth**
  - Helps mitigate impact of new CI candidates on clinic capacity
  - Extends reach of existing care providers

- **Helps with follow-up care compliance**
  - Many patients no-show for follow-up visits
  - A more convenient alternative to facilitate continuity of care

*Remote Check is not suitable for all patients. Data is based on internal Cochlear studies and presented here for illustrative purposes only.*
Building a market access capability

Fernando Gonzalo    Head of Global Market Access and Health Economics
Cochlear Capital Markets Day – 10 May 2019

Topics

• The impact of untreated hearing loss
• Market Access at Cochlear
• Building the capabilities
• Recent access outcomes and future opportunities
Despite its low awareness, hearing loss is now the fourth largest cause of disability

### Years lived with disability

**Global rank (2017)**

**All ages**

1. Low back pain
2. Migraine
3. Diabetes type 2
4. Age-related hearing loss
5. Major depression
6. COPD

**Global rank (2017)**

**Age 70+**

1. Age-related hearing loss
2. COPD
3. Low back pain
4. Diabetes type 2
5. Ischemic stroke
6. Alzheimer’s disease

The total cost of untreated hearing loss usually goes unnoticed by health care systems

- WHO estimated the total global annual cost of untreated disabling hearing loss to be $750 to $790 billion (in 2015)

- Direct medical costs account for only a small fraction of the cost of hearing loss

<table>
<thead>
<tr>
<th>Australia (2017)</th>
<th>USA (2000)</th>
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<tr>
<td>Productivity, education and support services costs (93.7%)</td>
<td>Productivity, education and vocational costs (93%)</td>
</tr>
<tr>
<td>Medical costs (6.2%)</td>
<td>Health system costs (7%)</td>
</tr>
</tbody>
</table>
The impact on SP SNHL on the individual is real and often tragic

1980s – 1990s: Trying to live “normally” knowing that things are only getting harder

Progressive hearing loss continues

Late 1970s: Progressive hearing loss as a result of ototoxic drugs

2001: 80dB loss in her best ear

2002: Lost her job due to “inability to perform her duties” (aged 54)

2003 – 2018: “Stuck” in the hearing aid channel, despite a 90dB+ HL in both ears and no clear benefit from HA use

2019: On a “waiting list” for a Cochlear implant

Source: Cochlear’s surgery data

Improved market access is an important driver of demand for cochlear implants

The journey to CI becoming the standard of care for newborns

Development of health economic data supporting cost effectiveness of cochlear implants for children

Nov00 – FDA approval for implantation in children from 12 months of age (Cochlear’s Nucleus 24)

Research demonstrating the cost savings (eg: attendance at mainstream schools) and quality of life

Expanded reimbursement for public patients and broadened indications

Clinical evidence supporting the benefits of bilateral implantation. By 2010, 50% of children under 3 receive two implants (70% by 2018)

US surgeries for children under 3

Adoption of universal newborn hearing screening from mid 1990s – mid 2000s

Source: Cochlear’s surgery data
Market Access addresses the needs of non-clinical decision makers

Change in healthcare decision makers

Product development, clinical studies and real world experience addressed the needs of clinicians

Market Access works to meet the needs of non-clinical (economic) decision makers

1990 – 2000s

2010s

2020 - onwards

Patients

Governments

Payers (incl. HTAs)

Hospitals

Clinicians

Data is illustrative

Successful market access requires a multifaceted approach

A differentiating and tailored value proposition that resonates with all stakeholders

Early stakeholder management and engagement plan to drive policy change

Value Proposition

Government Relations

Health Economics

Advocacy

Demonstrate the economic value of implantable hearing technology

Raising awareness through:
- Coalitions
- Global partnerships / sponsorships
Access capabilities are needed at global, regional and country level

Global Market Access builds evidence to demonstrate the 'value for money' of CI and increases awareness among payers and policy makers of the impact of untreated hearing loss.

Local country market access teams are experts on local reimbursement process and utilize the frameworks and tools provided by the global team to secure reimbursement and expand access where possible.

Winning value propositions address payers’ needs

The non-clinical decision maker values (and will pay for):

- Improved patient outcomes
- Improved healthcare efficiency
- Reduced societal cost

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Improved Patient Outcomes</th>
<th>Improved Healthcare Efficiency</th>
<th>Reduced Societal Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Payers invest in proven technologies that deliver superior patient outcomes</td>
<td>• Limited healthcare budget, ageing population and increased demand on finite healthcare resources makes operational efficiency highly valuable</td>
<td>• Recognise clinical and economic benefits to broader society (not just medical sector)</td>
<td>• Consider cost offsets over treatment lifespan</td>
</tr>
<tr>
<td>• ‘Value for Money’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
“Health” is measured in utilities (0 = death; 1 = perfect health)

1 QALY = 1 quality adjusted life year = 1 year of life lived in perfect health

The cost effectiveness of cochlear implantation in children has long been proven (incremental cost effectiveness ratio (ICER) ranging from $8,000 - $16,000 per QALY).

In adults, recent research also suggest highly cost effective ICERs (between £10,000 and £15,000 per QALY), well below the NICE accepted threshold of £20,000/QALY.

<table>
<thead>
<tr>
<th>ICER</th>
<th>CI vs. Hearing Aid £ per QALY</th>
<th>Cost effective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults, 18+</td>
<td>11,988</td>
<td>✔️</td>
</tr>
<tr>
<td>Adults, 65+</td>
<td>15,293</td>
<td>✔️</td>
</tr>
</tbody>
</table>

Advocacy activities will continue to be key to ensuring access

Advocacy goal is aligned to Cochlear’s Mission

“Help people hear and be heard”

Partnerships with patient and professional advocacy organisations, universities, NGO’s, well regarded influencers.

- **Awareness** of CI and hearing loss as a major public health problem
- **Align messages with partners** and communicate need to improve access to implantable hearing technology
  - Screening and early intervention
  - Referral pathways
  - Awareness of HL link to health ageing

Recent improvements in market access

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Change in reimbursement</th>
<th>Higher CI growth rate since change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>2017 - 2018</td>
<td>90dB → 70dB BCI funded</td>
<td>✔️</td>
</tr>
<tr>
<td>Taiwan</td>
<td>2018</td>
<td>Adult CI funding approved (50 units)</td>
<td>✔️</td>
</tr>
<tr>
<td>UK</td>
<td>March 2019</td>
<td>90dB → 80dB</td>
<td></td>
</tr>
</tbody>
</table>

UK changes driven by:

- Strong advocacy support
- Disparity in reimbursement criteria compared to other EU countries
- Payer belief in the cost effectiveness of CI as an intervention
- Proven efficacy of CI in the severe sub-segment
Future access opportunities: success will rely on payers’ understanding the overall impact of hearing loss

### Opportunity

- Broadening of reimbursement indications
- Increase funding / reduction of waiting lists
- Emerging markets
- Leverage
  - Connected care
  - Standard of Care for adults
- Acoustics

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### References

1. Institute for Health Metrics and Evaluation (IHME). Findings from the Global Burden of Disease Study 2017
Strengthening links to the hearing aid channel
Increasing access and awareness

Michele Fusco  VP, Strategic Growth Channels, Cochlear Americas
Cochlear Capital Markets Day – 10 May 2019

Dante: Introduction

• Longstanding hearing loss since childhood
• Using high-powered hearing aids
• Daughter is getting married and he is afraid he won’t hear the music at her wedding
In their own words...
“...I would have liked to have the choice presented to me 20 years ago...”

~Dante B

Why now?

Changing Landscape
- Third Party Payers
- OTC Products
- Big Box Companies
- Consolidation

Enhance Practice
- Alt. Revenue Sources
- Portfolio Expansion
- Differentiation
- Patient Referral Channels
Top reasons audiologists do not recommend hearing implants

• I don’t think patient’s hearing loss is severe enough for an implant
• My patients are generally satisfied with hearing aids
• I don’t have enough formal training and experience to feel comfortable recommending or offering implants

PSB Market Research, 2017 data on file

Cochlear Provider Network

The Cochlear Provider Network (CPN) enables independent dispensing audiology/audiology-ENT practices to expand their services to include cochlear implants and become part of a medical network that helps people with hearing loss achieve optimal outcomes.
CPN audiologist profile

- Open to revenue streams other than hearing aids
- Desires to be known as the community hearing health care expert
- Wants to offer all hearing solutions other than just hearing aids
- Practice has been established for at least five years
- Patients want audiologist to be involved in their care throughout their hearing journey
- Is a licensed audiologist
- Bills for services and is a Medicare provider
- Has a strong physician referral base and is comfortable partnering with physicians

Why audiologists want to be CPNs

- Positions clinic as “multi-specialty”
- Differentiate practice from competitors
- Creates an alternative revenue source
- Partner with community surgeons
- Retain existing patients
- Attract new patients
- Recruits medical model audiologists to the practice
- Create marketing and PR opportunities – increase awareness
CPN education and business training

- 2 Day training workshops
- Monthly webinars that include relevant topics (i.e. How to include Cls on your website, billing and reimbursement, etc…)
- Toolkit to get started—outlined protocols-easier candidacy identification
- Outlined billing practices
- Offer widest product portfolio
- Teaches ReSound/CI fitting procedures
- Join a network of progressive audiologists that offer all solutions

CPNs understand the value of hearing with two ears

- Recipients with residual hearing in the opposite ear will often continue to use a hearing aid with their cochlear implant
- Cochlear’s partnership with ReSound offers a comprehensive portfolio of Smart Bimodal Solutions to best meet patient needs
  - Recipients can take advantage of Made for iPhone technology and True Wireless™ accessories in both ears
  - Centralized customer support for bimodal recipients
Benefits of bimodal hearing

Potential benefits:

➢ Better hearing performance in background noise
➢ Music appreciation

Bilateral Hearing Aids (Appropriately fit HAs)

Quality of life improvements

Smart Bimodal (Nucleus 7 SP + ReSound HA)

HEARING PERFORMANCE
Satisfied or Very Satisfied

<table>
<thead>
<tr>
<th>Activity</th>
<th>Bilateral Hearing Aids</th>
<th>Smart Bimodal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to understand what is said on TV</td>
<td>13%</td>
<td>76%</td>
</tr>
<tr>
<td>Ability to understand conversations in a small group</td>
<td>8%</td>
<td>79%</td>
</tr>
<tr>
<td>Hearing performance in background noise</td>
<td>2%</td>
<td>58%</td>
</tr>
<tr>
<td>Ability to listen to and appreciate music</td>
<td>13%</td>
<td>68%</td>
</tr>
<tr>
<td>Ability to understand people on the phone</td>
<td>6%</td>
<td>71%</td>
</tr>
</tbody>
</table>

How the CPN works

- CPN Audiologist has key to unlock patient access
- CPN Audiologist evaluates for candidacy and counsels patient
- Recipient returns to CPN Audiologist for initial activation and follow up visits
- CPN surgeon performs procedure
- CPN Audiologist refers patient to CPN surgeon

Loyal database of long term customers
Patient trust means provider is decision "tipping point"
Surgeon provider relationship adds to legitimacy

Focus on what is best for patient - convenience, quality service, provider consistency
Familiar general practitioner "referral" pathway similar to knee surgery, heart specialist, etc.

The CPN has been growing strongly

- CPN clinic growth
- >125 Active CPN surgeons and >350 CPN clinics
- CPN surgeons grow 2x the rate of non-CPN surgeons
Cochlear Provider Network today

*Star size indicates CPN location density

- FY19
- Prior to FY19

Sycle – Helps identify and educate

The Continuum of Care through Sycle software aims to build awareness, support patient education, and facilitates efficient referrals for patients who can benefit from cochlear implants.

SYCLE SUPPORTS HEARING HEALTHCARE PROFESSIONALS IN PROVIDING CARE THAT MAXIMIZES A PATIENT’S HEARING EXPERIENCE.
Sycle software uses current practice workflow to educate

Flags potential candidates
AutoFill Referral Form
Creates a Physician Report for the CI surgeon
Embedded Educational Tools

Dedicated microsite contains further educational instruction

https://web.sycle.net/continuum-of-care/
Sycle portals provide professional awareness campaigns & industry KOL interviews

Case studies, myth-busters, educational webinars and patient counseling guides empower audiologists to feel confident in their decisions to refer patients for treatment.

In Summary……..

The CPN, together with Sycle, are driving a growing number of CI candidates from the hearing aid channel.

- The majority of CI candidates are in the hearing aid channel.
- The CPN demonstrates that building competencies in CI drives referrals.
- The experience of CPNs has been overwhelmingly positive in driving:
  - New revenue sources
  - Attracting new patients
  - Allowing audiologists to offer all solutions thus competing with Big Box, DTC and OTC.
- Growing the CPN is accomplishing 2 important goals for the CI industry:
  - Awareness
  - Access
Notes

Forward looking statements
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Given the significance of foreign exchange movements, the directors believe the presentation of the non-IFRS financial measure, constant currency, is useful for the users of this document as it reflects the underlying financial performance of the business. This non-IFRS financial measure has not been subject to review or audit. However, KPMG has separately undertaken a set of procedures to agree the non-IFRS financial measures disclosed to the books and records of the group.

Constant currency
Constant currency removes the impact of exchange rate movements to facilitate comparability of operational performance for Cochlear. This is done by converting the prior comparable period net profit of entities in the group that use currencies other than Australian dollars at the rates that were applicable to the current period (translation currency effect) and by adjusting for current year foreign currency gains and losses (foreign currency effect). The sum of translation currency effect and foreign currency effect is the amount by which reported EBIT and net profit is adjusted to calculate the result at constant currency.

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