



# IT IS TIME TO TALK ABOUT COCHLEAR IMPLANTS

Dr Ann-Marie Dickinson:

- Specialist Audiologist, Manchester Foundation Trust.
- Adjunct Lecturer in Audiology, University of Manchester
- Vice-chair of the BAA SQC.



# The role of SCQ

The main objectives of the team are:

- To maintain, promote and improve clinical service through advice and guidance.
- To set standards, write protocols and disseminate them into practice.
- To encourage evaluation and auditing of service quality and raise awareness of service quality information.
- To support local/national quality initiatives.
- To advise BAA and other stakeholders on associated quality issues regarding provision of paediatric and adult assessment, diagnostic and rehabilitative services.

# Why am I here today?

- 2001: Trainee, learnt 'on the job'.
- 2007-2009: MSc Audiology
- 2009-2011: Lead for Specialist Adult Rehab.
- 2011-2015: PhD 'Frequency Lowering' hearing aid technology.
- 2012-2017: IQIPS technical assessor
- 2015-2018: Lecturer, Adult assessment and management.
- 2018-2019: A full time mum (almost)



# I want to talk about....

- The evidence behind CI referral/uptake
- How to boost referrals within a service
- My experiences.
- The BAA SQC's commitment: what are we going to do?

# S&P deafness: the facts....

- Severe and profound (S&P) deafness leads to anxiety, depression and social isolation in some adults (Kim et al., 2017; Carlsson et al., 2015).
- S&P deafness detrimentally affects quality of life (Carlsson et al., 2015) and may put adults at risk of **Dementia** (Lin et al., 2011).
- **Cochlear implants (CIs) are cost-effective interventions that work: they reduce the economic burden of S&P deafness and improve lives** (WHO, 2017).

# CI outcomes: the facts....

- Sentence recognition scores in quiet jumped from **10%** pre-implantation to **77%** post-implantation (MFT, 2018).
- 86% of implanted adults reported that their CI provided access to communication leading to **progression in education and improved career opportunities**. Respondents reported less reliance on others and described **families becoming 're-connected'** (Ng et al., 2016).
- Adult CI users described reduced listening effort and felt more in touch with their own social world; termed **'social connectedness'** (Hughes et al., 2018)

# CI uptake: the facts....

**The uptake of CIs by adults is disheartening, <7% of estimated eligible adults receive one** (Raine et al., 2016; Raine, 2013).

**Despite life-changing benefits post-implantation** (Ng et al., 2016; Gaylor et al., 2013), **the magnitude of which cannot begin to be achieved through the use of hearing aid technology** (Simpson et al., 2018; Akinseye et al., 2018).



# The Gaps...

## <7% is not the full picture.....

- How many adults are assessed but are found to be unsuitable or decline? ~50% (so <14% assessed?)
- How many adults decline a referral for an assessment? ~20% (so <17% adults informed about CIs?)
- How frequently are CIs discussed with each patient?
- What is the 'quality' of the discussion?



# Do adults want an implant?

Raine et al. (2016) proposed six reasons for low uptake among adults:

1. *Acceptance of deterioration of capacity with age.*
2. *Presence of a partner who supports and ameliorates overall effect of such HL.*
3. ***Lack of awareness.***
4. ***Failure of primary care to propose CI treatment.***
5. ***Failure of audiology units to propose CI treatment.***
6. *Poor health and reluctance to undergo surgery.*

*(Raine et al., 2016; page 43)*



# Failure of audiology units to propose CI treatment.

- 48% of Audiologists could confidently interpret the NICE referral guidelines and the same number felt confident discussing CIs with patients and their families (Chundu & Buhagiar, 2013).
- 68% of Audiologists were able to correctly identify CI candidacy. Ski-slope loss caused considerable confusion with just 24% correctly identifying candidacy pre-training, this figure rose to 98% post-training (Raine et al., 2016)



# *‘Addressing the low uptake of cochlear implants amongst adults: Audiologists’ views of the barriers and facilitators for referral’*

**Sarah Allen (2018) The Ear Foundation**

Interviews and survey responses suggested four key themes:

1. Patient concerns: fears, lack of awareness of benefits.
2. Local pathway: appt time and complicated admin.
3. Relationship with CI centre: easy to contact and regular training.
4. **Professional issues: specialist knowledge and counselling skills (not sufficiently taught at undergraduate level).**



*‘Because I am a bit more experienced now, I can have a conversation about it, but when you are new you don’t have any idea’*  
*Allen (2018)*

# BSc Healthcare Science (PTP) Curricula

## 6.1 Specialist Modules for Audiology

Interpretation of the high-level framework for Neurosensory Sciences specialising in Audiology

	Module Title				
<b>Year 3 Application to Practice</b>	Professional Practice [10]	Audiological Science II [60]		Research Project [30]	Work-based training 25 weeks [20]
<b>Year 2 Technologies and Methodologies</b>	Professional Practice [10]	Research Methods [10]	Applied Physiological Measurement and Instrumentation [20]	Audiological Science I [70]	
<b>Year 1 Scientific Basics</b>	Professional Practice [10]	Scientific Basis of Healthcare Science – integrated module across body systems [60]		Applied Physics and Measurement [20]	Applied Anatomy, Physiology and Pathophysiology [20]
					Clinical Measurement and Treatment, including work-based training) [10]

[XX] = Number of credits



Generic modules: Common to all divisions of healthcare science

Division-theme modules: Shared by a group of specialisms, usually within a Healthcare Science division

Specialist modules: Specific to a specialism



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# BSc Healthcare Science (PTP) Curricula

Audiological Science (II) [60 credits]. By the end of this module the student will:

1. Explain the developmental milestones in the development of hearing in **children**.
2. Explain the fundamental principles of assessment for **balance** disorders.
3. Analyse the **psychosocial implications** of hearing loss and **tinnitus**.
4. Discuss the basic principles of epidemiology in relation to hearing/balance disorders and tinnitus.
5. Critically appraise the assessment and management needs of particular **specialist populations** in Audiology, to include the challenges of ageing, dementia, culture and language.
6. Critically reflect on how their personal communication skills have developed to support high-quality, patient-centred care.



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# **BSc Healthcare Science (PTP) Curricula**

- **2 hour lecture.**
- **4 hours self-directed reading.**
- **1 (optional) essay question, chosen out of 6 titles.**
- **2.5 credits (out of 360!).**
- **No mention of 'implants' in the work-based learning guide.**

# Interim conclusions..

- ✓ CI referral counselling is a specialist skill which is not acquired during Undergraduate training.
- ✓ Awareness of CIs is low amongst UK NHS Audiologists
- ✓ Confidence discussing implants and referral rates can be improved with training.
- ✓ Audiologists need extra support within their clinics to discuss implants.
- ✓ Effective communication between referring centres and implant centres is vital.

**Awareness of CIs amongst independent sector Audiologists and Hearing Aid Dispensers is currently unknown and requires research.**



*‘Broadly speaking, there is a **low level of awareness** of what to do when a client/patient fails to derive acceptable benefit from hearing aids and may be a candidate for a CI. As a result, **many (most?) IS professionals will not know how to refer for a CI assessment.***

*There is a general **reliance on frequency lowering technologies** for those with very severe/profound HF hearing loss. **There is certainly a lack, even absence, of guidance to IS professionals on what to do if a CI should be considered** when hearing aids fail to meet an individual’s needs’.*



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# Training & Support

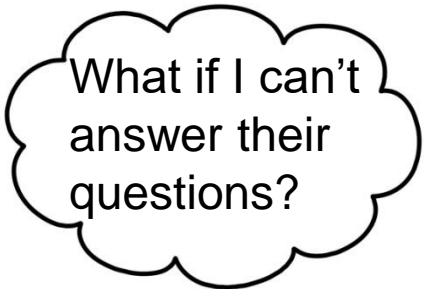


# Training for professionals

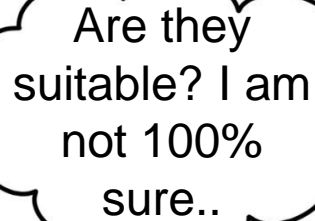

## Increase *awareness* and *understanding* of implants:

- Ensure *entire* department understand the benefit of CIs, and a high-proportion of staff are confident discussing them. **A team approach is important.**
- Departmental training should include **talks, workshops, shadowing, observation, case-study presentations & peer-review**. A single training session is not enough!
- **Monitoring referrals** can help identify gaps in knowledge and training needs amongst staff.
- Develop close links with implant centres through visits, emails and phone calls.
- Ensure staff are aware that age, language, duration deafness, good low frequency hearing, and cognition **do not represent a barrier to referral.**

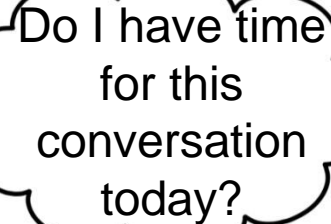

# How to talk about implants...it's not an easy conversation for a hearing aid Audiologist!



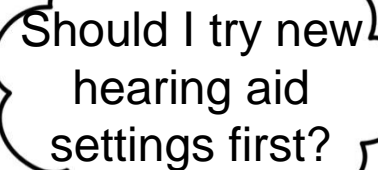

What if I can't answer their questions?




Are they suitable? I am not 100% sure..



Do I have time for this conversation today?



Should I try new hearing aid settings first?



# How to talk about implants

- Be honest. Admit your not an expert.
- Encourage patients away from making a decision in haste : *'I am too old'* , *'I don't want an operation'*
- Ensure patients understand:
  - Perceptual consequences of S&P loss: dead and damaged regions of the cochlea.
  - The limitations of hearing aid technology.
  - How CIs work and the benefits that can be gained.
- This conversation supports logical decision making for the patient; vital in self-management.
- This conversation ensures patients are not waiting for a 'technology fix'.



# Fully informed..

## Shared decision making, informed choice, patient centred approach..

- Often patients feel by agreeing to a referral they are, in part, consenting to having an implant.
- CI centres are best placed to provide patients with all the information they require to make a decision about whether a CI is the right option for them.
- Realistically a CI referral discussion may take **15-20 minutes**.
- For some, consideration of a CI referral is a process that takes place over **a number of appointments, involving several family members**.



*'I think in their minds they feel you make the referral and that implies they definitely want to go through with it, rather than this is your opportunity to meet with people and to assess your suitability [...] and come to a joint conclusion'*

*Allen (2018)*



# Clinical procedures to support CI referral

- Simple and clear referral pathway: a report template.
- A well-known contact person at the local CI centre for informal queries/questions.
- Schedule extra time into hearing aid appointments so implants can be discussed, or **prioritise a discussion on CIs above other management options** e.g. hearing aid fine-tuning.
- A section in the notes template for S&P patients specifically about CI referral e.g. *'Was a CI referral discussed, Y/N? If yes, what was discussed? If no, why not discussed?'*





# Support for patients

Increasing awareness of implants amongst patients will help improve referral rates:

- Empower patients to ask about implants e.g. posters in the waiting room which encourage patients to 'ask your Audiologist'.
- Leaflets discussing CIs in the waiting room as reading material.
- Arrange group sessions in which patients considering referral can meet CI users.



# My experiences...

Professionals differ enormously in terms of awareness, knowledge and motivation.

1. Unaware.
2. Aware but lack the confidence.
3. Aware but have preconceived ideas & low expectations for their patients.
4. Aware but miss-led by hearing aid technology
5. **Aware and confident**

**Most professionals are not aware of the low uptake/referral rates**



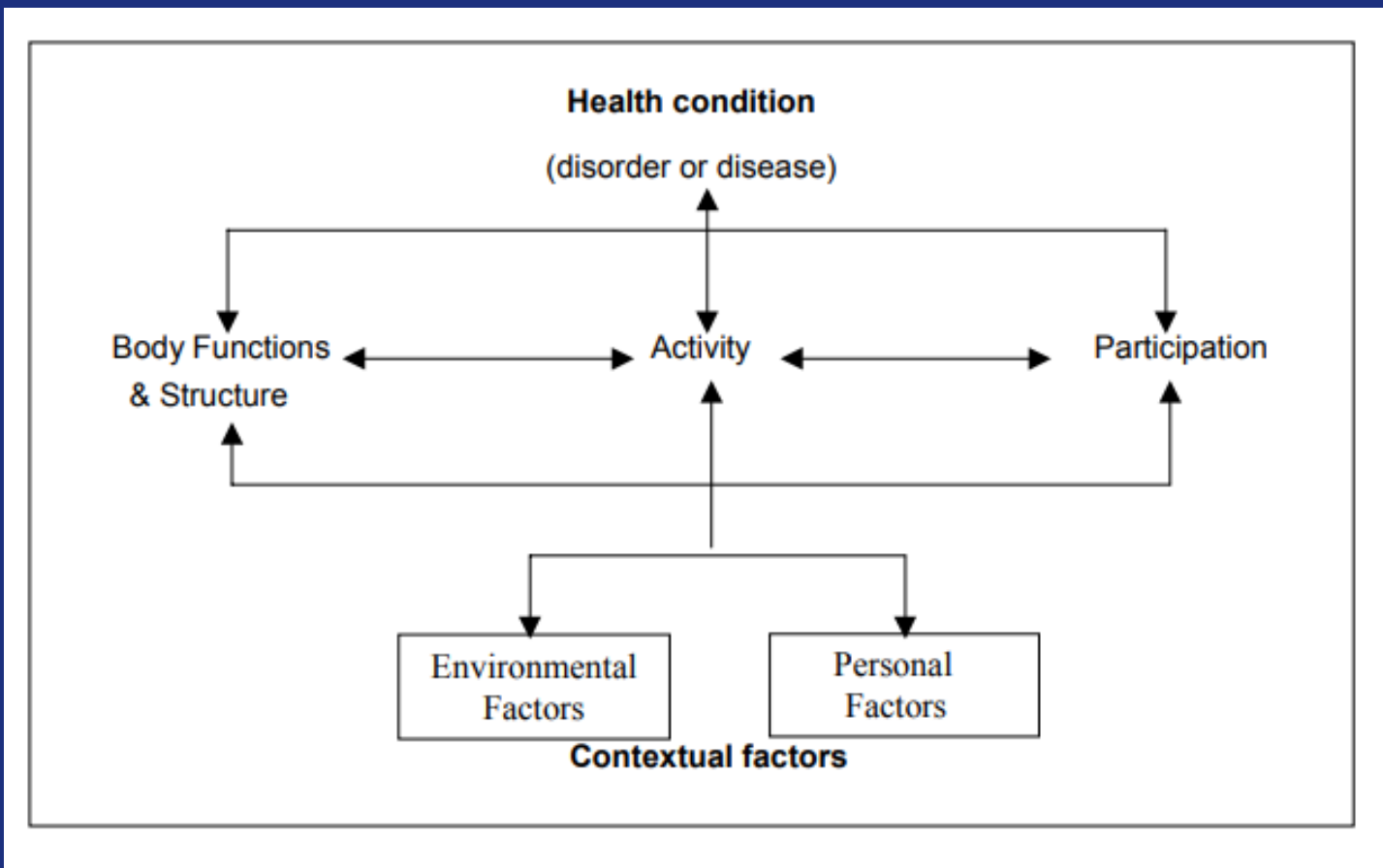
*'I think the older they are, 70 or 80 years old, **they won't want it** and don't want to go through the surgery. For someone who has had a hearing loss for a long, long time and they are happy with their hearing aids, and **they don't know any better** and are quite good lip readers and **they are managing well**, then I probably wouldn't consider them.'*

*Allen (2018)*



**cope**, get along/on, make do, be/fare/do all right, carry on, **survive**, deal with the situation, scrape by/along, muddle through/along, fend for oneself, shift for oneself, make ends meet, weather the storm.

# The International Classification of Functioning, Disability and Health





**Fulfilled:** feeling happy because you are getting everything that you want from life.

**Live-well:** Living well goes beyond physical fitness. Wellness is a holistic concept that encompasses a person's physical, psychological, emotional and spiritual components.



# How can we make everyone 'aware and confident':

1. Unaware – need to see the facts...
2. Aware but lack confidence – need *ongoing* training and support.....
3. Aware but have preconceived ideas – need *rehab/counselling* training.....
4. Miss-led by hearing aid technology – access to independent non-bias information,
- 5. Aware and confident – need to train and support colleagues, and audit their own services.....**



# Conclusion: as a profession we need to....

- Raise awareness
- Alter our clinical approach...
  - Support each other
  - Offer timely referrals
  - Have frequent discussions.
  - Prioritise the discussion.
  - Make a discussion the 'norm'
  - Raise our expectations for adults with S&P deafness.
- Ensure all professionals can access independent, non-bias, information about CIs and hearing aid technology.
- Embed CI referral into professional policies/procedures, and *all* training routes.



# What next..?

- Produce a **short animated video** aimed at professionals and the general public which clearly shows the benefits of CIs and how they work.
- **Free online training** : article, webinars, literature library.
- Approach the **IDA institute** to help devise a ‘tool’ to support CI referral discussions.
- Develop a case-study based **tutorial for HEIs**.
- Ensure CI referral becomes....
  - a recognised ‘onward referral’ followed by the profession *as a whole*.
  - Embedded into *all* training routes – NHS & IS.



*‘...there are probably patients [...] getting to a point where they are getting old and you think ‘oh no’ but you have had that patient for a long time [...] and **you could have referred them a long time ago**’*

*Allen (2018)*



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# My Commitment....

To keep talking about CI referral.....  
#itistimetotalkaboutcochlearimplants

Thank you for listening!

[Ann-marie.dickinson@manchester.ac.uk](mailto:Ann-marie.dickinson@manchester.ac.uk)