

Towards a national audit for cochlear implant referral practice: *learnings from James Cook University Hospital*

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Introduction

NICE (NG98, 2018) recommend cochlear implants (CI) should be discussed with every eligible adult. However, it's estimated that only 5% of eligible adults in the UK receive a CI (Raine, 2013). This is partly the result of low referral rates.

A recently published international consensus paper on cochlear implantation states that "Awareness of cochlear implantation among primary and hearing healthcare clinicians is inadequate, leading to under identification of eligible candidates." (Buchman et al., 2020).

To understand why adult CI referral rates remain low, we carried out a local audit to investigate whether audiologists are having discussions about CI with their eligible patients.

Aims

1. To look at numbers referred as a percentage of the eligible population
2. To look at the percentage of eligible patients who had a CI discussed
3. To capture the reasons for non-referral i.e. patient choice, referred for other implantable solutions etc.
4. Recommended service changes & rerun Audit

Method

Audit carried out in the adult Audiology Department of James Cook University Hospital, Middlesbrough for financial year 2017-2018.

A Crystal Report was developed to identify patients in our AuditBase database.

Search criteria:

- ≥ 18 years old
- Audiogram performed in the financial year 2017-2018
- Latest audiometric thresholds within NICE (2009) CI criteria

For patients identified by the Crystal Report we then did a manual interrogation of their journal entries in AuditBase to determine whether a CI referral had been discussed, classifying them as one of the following:

- Referred for CI
- CI not discussed or not documented
- CI discussed and declined
- Referred for other implantable solution
- Referred for further assessment

Results

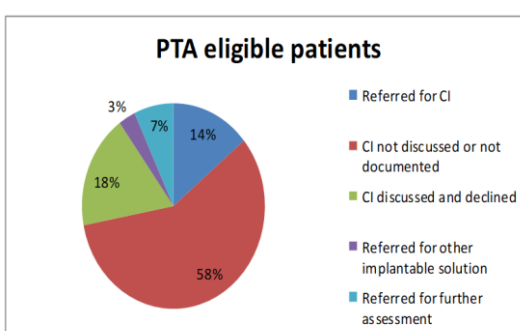


Figure 1. Potential eligible patients (PTA alone) by referral discussion outcome category

Declaration of interest:

We would like to thank Cochlear Europe Ltd. for supporting the development of the standardised Crystal Report.

Recommendations for improvement

- Hotkey prompts for CI referral to be created for all adult audiology appointments.
- CI information leaflet given to all patients eligible for CI who were offered an assessment and saved to patient profile on AuditBase
- Separate document created, but not given, for audiologicaly eligible patients who were not offered a CI assessment & reason documented in their journal
- Crystal report redesigned to also capture patients receiving the leaflet, thereby recording a CI discussion
- Audiogram record sheets to be amended to highlight thresholds within current CI criteria
- Design quick guides for referral for CI to be distributed in all clinical rooms as a visual aid.
- Contact all NHS referring departments within catchment area to inform and engage
- Contact all AQP providers in the catchment area to inform and engage
- Advocate Cochlear Implant Champions at all referring sites
- Re-audit referral numbers locally & regionally in 2019-20 to include those also offered a referral and reason declined/% implanted/age distribution etc

Post service change impact

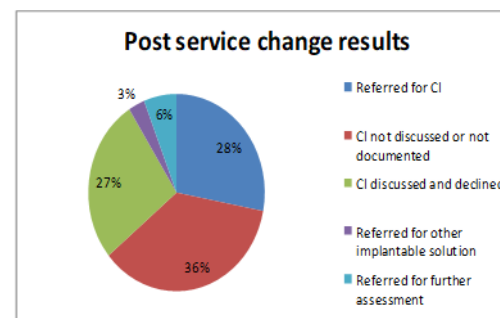


Figure 2. Potential eligible patients (PTA alone) by referral discussion outcome category after recommendations implemented.

After implementing the recommendations we observed an increase in the percentage of patients with recorded discussions & a doubling of referrals of eligible patients at James Cook Hospital.

Some of these service changes were adopted by a neighbouring Audiology Department resulting in a tripling of their usual referral rate

Discussion and next steps

The use of Crystal Reports for local audit can help audiology services to analyse their referral practice and identify initiatives to support audiologists to have these important conversations with their patients.

Interrogating the patient journal entries was extremely time consuming so it is important to document the outcome of CI referral discussions in a consistent way, and for every potentially eligible CI candidate e.g. in AuditBase parameters. This will make it possible to extract this data quickly via the Crystal Report.

We are now collaborating with Auditdata, Cochlear, and a number of audiology services across the UK to develop a standardised Crystal Report that is easy to implement and can be used to identify potential CI candidates in any centre using AuditBase. **We hope that this can be used to support the establishment of a National Audit on CI referrals.**

References

Buchman CA, Gifford RH, Haynes DS, et al. (2020) Unilateral Cochlear Implants for Severe, Profound, or Moderate Sloping to Profound Bilateral Sensorineural Hearing Loss: A Systematic Review and Consensus Statements, *JAMA Otol Head Neck Surg*, 146(10): 942-953.

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