

# Questions Log BCIG/BAA Champions Webinar, Sept 2020.

## Topics

Audit.....	1
Counselling:.....	2
Assessment & Surgery .....	3
Hearing aid technology .....	5
AB word testing.....	5

## Audit

### Audience Question:

**Q:** how did you extract the numbers? did you have an outcome option in auditbase to extract that and filter. i think my department does not have any special outcome for when we refer to CI. it will be a challenge to get numbers as we don't have yet a defined process for this

**A:** You can use a crystal report in AuditBase – You will need to set up standard parameters for monitoring referral discussions and to assess the status of a patient's pathway. Cochlear have developed the Cochlear CI referral report which is being finalised, if you are interested in having the report in the near future, please do email Cochlear on [UKLearnNow@cochlear.com](mailto:UKLearnNow@cochlear.com). You can search the notes manually - however appreciate this is more time consuming and could be done for a small number of patients e.g. 1 month. You could also add a section to the notes template to help with audit.

### Audience Question:

**Q:** is there an AB report the team are willing to share for the audit

**A:** Message from Rashmi, Cochlear Engagement Team: 'The Cochlear CI referral report is currently being finalised and we're in the process of considering how best to make the report easily available for everyone on AuditBase. It is quite a large file and may need support with the initial set up which can be provided by Cochlear, Please contact us at Cochlear, [UKLearnNow@Cochlear.com](mailto:UKLearnNow@Cochlear.com) so we are aware you are interested in auditing'

### Audience Question:

**Q:** is there a PBN report the team are willing to share for the audit

**A:** The PN report instructions are attached to this webinar as a handout. The file for PN and instructions will be added to the Champinos webpage as part of an 'audit tool kit'

### Audience Question:

**Q:** I'm conscious of the word audit being used which would imply there are agreed evidence

based standards to adhere to. Are we at the point where these can be set e.g. 100% of suitable patient to have discussion recorded in journal. If not then at least initially should it be classed as a service review with locally agreed key performance indicators?

**A:** If we have a gold standard then it is audit. Yes 100% of 'suitable' patients should be told about CIs (NICE, 2018). In what situations would it be acceptable not to inform a suitable patient about this treatment option?

**A:** When I began auditing, we reached around 40%, after training/support etc we reached 95-100% (sometimes just missing the odd one). It took 12 months. I think we should be aiming for 100%.

#### Audience Question:

**Q:** I suppose if the patient was in denial about their hearing loss this would need to be managed first before the conversation or if other life circumstances were a barrier to treatment eg. a recent bereavement, I guess noting this on the journal is the most important thing, are there any tips for taking these factors into consideration when auditing?

**A:** This would fall into 'unsuitable at current time', there are many reasons why a conversation may not be appropriate. It just needs to be noted in the notes that pt is eligible but not ready - so 'unsuitable at current time'. This would still meet the audit criteria. Hope this all makes sense. The audit approach is flexible and you could set your own targets (if you could justify why it is not 100%). I have put together a 'audit toolkit' to clarify who meets and who fails the audit.

## Counselling:

#### Audience Question:

**Q:** May I ask at what stage in the patients' pathway would discussing CIs be considered appropriate? I only ask because the criteria states candidates must have bilat profound deafness + insufficient benefit from HAs. Therefore HAs must be fitted first, is that right? Thank you

**A:** Good question! The NICE criteria say 'after assessment'. We know the patient needs to have tried HAs first. CI as a treatment option should be considered after the assessment - if at reassessment the PTA is in criteria, and the patient report difficulties with their current HA provision, then the idea of a CI could be introduced. The conversation could be picked up at the FU with their updated HA (perhaps after an AB word test). Leaving it all to the HA FU is a little risky; firstly the patient does not have much time to consider (which may result in them declining without having all the information or time to discuss with family), secondly, the audiologist may forget and then that patient has been missed. **However should you come across someone who has had a sudden loss then we would recommend that your fast track the referral and don't worry too much about fitting hearing aids in this case as getting them to a CI centre as quick as possible is very important.**

#### Audience Question:

**Q:** In paed's I think we tend to talk about CI when they are diagnosed as babies if they qualify but the guidance is not really clear for older children in my opinion. i think when the patients are older we tend to stay with them and CI is not discussed if speech discrimination is good or even fair. i work in a paediatric department

**A:** Thanks for sharing. What is 'good' or 'fair'? Do all staff in the team follow the same approach?

#### Audience Question:

**Q:** I know I think the paediatric standards definitely need to be discussed as I think everyone uses their own judgement on speech tests or speech development even if it is delayed. **A:** Thank you. I will be in touch :-)

#### Audience Question:

**Q:** patients with severe Tinnitus - that are worried about what might happen - how do you counsel these people?

**A:** generally the advice is that tinnitus can increase, decrease or remain unchanged and it is not possible to predict this. The majority of CI users do report tinnitus increasing immediately post op but also report an alleviation once the implant is switched on. A small number may require further tinnitus counselling as appropriate. Linor - We discuss tinnitus as one of the risks post-implantation with each patient thoroughly. As a general rule we use the following at our centre, for 50% of CI patients the tinnitus will improve post-implantation, for 45% of patients the tinnitus will stay the same post-implantation and for the other 5% their tinnitus can get worse. However we do find that as patients can hear more sounds around them the majority of patients can cope better with their tinnitus post-implantation. We also would offer tinnitus assessment/therapy as when needed to all patients so generally we try and reassure them.

## Assessment & Surgery

#### Audience Question:

**Q:** Will we only look into residual hearing for selection of which ear to implant? or Can we use other tests as eABR to see which ear responds better with electrical stimulation?

**A:** Some centers may consider performing eABR for cases where there is a cochlear or auditory nerve abnormality. With regards to ear decision, it is a combination of residual hearing, history of hearing/profound deafness and history of aiding.

When deciding on which ear to implant we look at a few factors:

- Residual hearing
- Hearing aid use/history in either ear
- Scans – this may show one ear better than the other for surgical reasonings
- Audiology test results – speech tests, tympanometry, vHIT (if one ear has poorer balance function then we tend to go for that ear to minimise potential balance disturbance after surgery)

We don't use eABR for this reason. Many years ago we used to use a technique called ear canal stimulation which is similar but we found that this did not yield reliable results for us.

#### Audience Question:

**Q:** What is the difference between hybrid and full implant?

A hybrid or as more commonly known EAS (electro-acoustic stimulation) is a combined cochlear implant processor and acoustical hearing aid in one device. This technology is suitable for candidates with good low frequency hearing post op and it allows to provide better sound discrimination in noise, better music appreciation and more natural hearing. This depends on the available residual hearing which often continues to deteriorate so it is not always a forever

solution and requires tweaking the settings to ensure audibility is provided long term. A hybrid or a electroacoustic (EAS) device is a combined device where the patients is fitted with an acoustic device to stimulate the low frequencies and the middle and higher frequencies are delivered via electrical stimulation from the implant. Externally a hybrid/EAS looks slightly different in that the acoustic device is coupled onto the implant processor and the sound is delivered via a earmould or open fitting dome to the ear. In our centre this does not make any different to the surgical procedure as we perform soft surgery (try and preserve any natural residual hearing after surgery) for all the CI surgeries we do. It does however potentially impact the choice of implant used as some are better than other at preserving residual hearing.

**Audience Question:**

**Q:** Would local anaesthetic considered for children as well?

**A:** We are unsure – check with your local implant team. We will also try to find out more about this before BCIG 2021.

**Audience Question:**

**Q:** For case study 3 - would a CI assessment not be done in view of sound awareness rather than a full benefit?

**A:** .Some centers may consider it but not all depending on the details fo the case but it can considered as long as motivation and expectations are realistic. The evidence behind cases of Cis in adults without any prior acoustical aiding and profound deafness from birth are at a significant risk of becoming non-users.

**Audience Question:**

**Q:** Would the assessment process for CS 3 not help the pt even if they don't end up having a CI?

**A:** .It would depend on whether the center accepts such referrals (some don't) and whether the expectations and motivation of the referral are adequate. In the case of this patient it would be highly unlikely that the patient would benefit even from sound awareness as there is no evidence that the auditory pathways are developed. If we fitted a cochlear implant it is very likely that any sound heard would not be pleasant and the patient would likely reject the CI. In order to benefit from a CI even just for sound awareness there has to be evidence of previous auditory stimulation or benefit from wearing hearing aids.

**Audience Question:**

**Q:** If anyone has a progressive loss, how long will we wait to decide whether go for EAS or purely electric stimulation?

**A:** .the rule of thumb is the level of severity at 500 Hz, if this is below 80 dB post operatively, an EAS may be considered; if it's worse than 80 dB, it's likely to be purely electrical. Anyone with residual hearing post-operatively are monitored closely for any drop in their hearing. If their thresholds are better than 60dB at 500Hz then we would aim to try an EAS. The acoustic component can easily be removed from the fitting of the CI should their hearing progress further so as long as their thresholds are monitored this is not a problem.

**Audience Question:**

**Q:** If they didn't have corticals but did have OAE would you still proceed to implant?

**A:** Possibly, they would be assessed on a case by case basis as all cases of ANSD/neuropathy and it would require a battery of tests to form the full picture.

## Hearing aid technology

**Audience Question:**

**Q:** What are your thoughts about sound recover (or similar), I've found that this is perhaps being used instead of referring for implantation. If sound recover has been used, does this then effect how successful the implant will be as part of the pathway hasn't been used

**A:** See systematic reviews on SoundRecover: <https://pubmed.ncbi.nlm.nih.gov/28918706/>, and <https://www.tandfonline.com/doi/abs/10.1080/14992027.2017.1420255> Quality of evidence is poor. It can help some individuals to hear high-freq sounds but little evidence of benefit in real-world situations. **Benefit is small. It is not a replacement for a CI referral.**

**Audience Question:**

**Q:** Do you recommend we verify sound recover settings before referring for CI assessment ? My department uses sound recover regularly but we do not complete verification routinely

**A:** This website has useful info on verification of frequency lowering:

<https://web.ics.purdue.edu/~alexan14/fittingassistants.html>. The verification will usually make small differences; the default software settings are usually too weak for adults (better for paedrs). See BSA guidance also. The patient's opinion of sound quality is most important. **The verification of Soundrecover/frequency lowering should not delay a referral.**

## AB word testing

**Audience Question:**

**Q:** We only have male AB word testing, can we make the referral if AB score is better than 50% but write this on the report that we expect scores to be worse w female voice?

**A:** Interesting question. The 50% score is an implant criteria (NICE, 2019), the implant services may want to assess the patient before that point, so they have time to prepare the patient. Manchester accept 60% or less scores for referral. Perhaps find out what score your implant service accepts? I think, implant teams usually use a mixture of male and female speakers on their AB word test at assessment, so patients would likely score worse compared to male only lists.

**Audience Question:**

**Q:** Are free field AB tests a useful tool?

**A:** Yes, it is aided soundfield AB word testing that we use for assessing candidacy for CI within the CI centres so if you are able to access this then it can be a great help prior to referring.

**Audience Question:**

**Q:** When doing the AB word list I score based on phonemes and not whole words. Should I be scoring on words?

**A:** NICE is based on phoneme score - every word in the list is scored out of 3 points. There are 10 words per list. So in each list, 10% change in score = 1 word wrong/right! Shows why having some flexibility on the 50% criteria score is important. I also do 3 x lists to check scores. Some lists 'easier' than others (depends on words in them).

**Audience Question:**

**Q:** What platform for video calls is allowing live captioning for ci centres

**A:** We currently use Accurx for video calls but are in the process of implementing Attend Anywhere. Accurx does not have live captioning so we tend to type/transcribe the appointment as we go. Live captioning however would be great.