Connecting radio system to a Cochlear Implant

The fitting of a Radio Aid system to a Cochlear Implant needs careful monitoring and all cochlear/auditory implant centres will have their own policy on the fitting of radio aids. An example of such a policy can be found at [http://ais.southampton.ac.uk/files/2016/04/AIS-Radio-Aid-Fitting-Policy-March-2017.doc](http://ais.southampton.ac.uk/files/2016/04/AIS-Radio-Aid-Fitting-Policy-March-2017.doc).

The Audiology at the CI Centre will need to enable the speech processor to work with a Radio Aid and make adjustments to the internal settings through the manufacturer’s software. With some speech processors, a specific programme works with the Radio Aid, in others it is the speech processor itself which is enabled on all programmes. If a personal Radio Aid system with a neck loop is being used, a ‘T’ setting will need to be enabled. Other things to consider and check are:

- check if the speech processor has internal alerts which only the CYP will hear if a programme needs to be changed.
- check if the speech processors are synced so that one speech processor changes programme automatically when the other is changed.

Some Implant Centres will also do the initial fitting of the Radio Aid. This is recommended. The Teacher of the Deaf or Educational Audiologist supporting the CYP locally will need to:

- provide a compatible radio aid and may also need to provide connecting leads, accessory adapters etc. In some cases, the purchase of a specific Radio Aid receiver, which comes in the same colour as the speech processor, may be needed.
- The Teacher of the Deaf or Educational Audiologist will need to advise the Cochlear Implant Centre if there are any others in the CYP’s class or school using radio aids. If there are, the frequencies of the other radios being used will need to be shared and information as to any Soundfield System being used in the CYP’s classroom or hall etc. will also be needed.

A need was initially identified, to address discrepancies in advice being given about when to fit a radio aid system to young cochlear implanted children. The FM ChIP was developed as a systematic way of assessing children’s readiness and skills in this area, to ensure successful radio aid use and independent learning. This was shared through the BATOD website and services have developed their own versions of this profile, which can be used as a checklist of skills if there is any uncertainty.


The Cochlear Implant FM training tool is a useful resource which is aimed at Teachers of the Deaf or relevant professionals. It aims to ensure that children are ready to use a radio aid. It is also helpful in developing their language and ability to describe the sound they are hearing, it gives them the vocabulary to comment on the quality of what they are hearing. The tool was jointly developed by the Cochlear Implant Team at the Royal National Throat, Nose and Ear Hospital in London and Phonak UK.

https://www.uch.nhs.uk/OurServices/ServiceA-Z/ENTS/CIM/Pages/FMTrainingTool.aspx

Verification and monitoring of the Radio Aid fitting

• QS5 states – ‘Training and written information about the personal Radio Aid system, its
settings and its appropriate use must be agreed and shared with the child, parents,
teachers and all those involved in supporting the child’.
• QS11 states that ‘There must be close liaison between health and education teams,
including the exchange of written information relating to the use of the child’s personal
radio aid system.’

Therefore, regular listening checks in noise and in quiet with a CYP using a radio aid should
be carried out. It is not possible to listen through the whole system in the same way as with
a hearing aid. You may be able to listen to the Radio Aid through the speech processor, but
you are only listening through the speech processor microphone and NOT hearing what the
implanted CYP hears.

The balancing of the Radio Aid and CI Speech processor through a test box is also
important. For different speech processors there may be different leads that are needed to
be purchased to connect to the test box, please check with the Cochlear Implant Centre.

Here are some links which will help with this.
Cochlear
wnloads/Fitting_Guide_Roger_Cochlear_Nucleus.pdf
Medel
wnloads/Fitting_Guide_Roger_MED-EL_Opus2_Rondo.pdf
Phonak radio aid systems
https://www.phonakpro.com/content/dam/phonakpro/gc_dk/en/products_solutions/wireless
_accessories/roger_receivers/documents/Desktop_Fitting_Guide_Roger_and_CI_210x297_G
B_V5.00.pdf

Pauline Cobbold and Helen Maiden  Dec 2017