**Protocol for Issuing Personal Radio Aids (FM systems)**

Schools are challenging acoustically and the use of radio amplification in such settings should be considered as standard provision.

All children have busy lives outside of school, where the opportunity to learn

to ride a bike, join a local group, or take up any outdoors activity would be enhanced by sensitive use of radio amplification. Learning takes place in as many informal as formal settings. Restricting use of such equipment to school only is limiting a child’s access to their social activities.

Hearing aids and implants, whilst being increasingly sophisticated, are poor in multiple-speaker situations and at distance therefore radio amplification when well fitted, maintained and used can offer real opportunities for language enrichment.

In Great Britain, the Equality Act 2010 means that schools and other education settings must provide auxiliary aids (such as radio aids) as reasonable adjustments. Evidence of the benefits of radio aids is compelling and deaf children deserve the very best opportunities. All those concerned with the provision of services have a responsibility to ensure that radio aid systems are used appropriately to enhance the experience of all deaf children, both at home and in educational settings.

(taken from the NDCS booklet Quality Standards for the use of personal radio aids - *Wendy McCracken* *Professor of Deaf Education University of Manchester*)

Personal radio aids have the potential to greatly enhance deaf children’s

listening experiences by making speech more audible in situations where

distance, background noise and reverberation make listening difficult. Under the Equality Act 2010, local authorities and education settings in Great

Britain have a duty to make reasonable adjustments to ensure deaf children

are not disadvantaged. This includes a specific duty to provide ‘auxiliary aids’

where they’re needed. Radio aids are regularly cited as an example of an

auxiliary aid. For a radio aid to be effective, the individual hearing

aid or implant needs to be appropriately programmed and fitted with the radio

aid receiver. However, it’s now becoming more common for aids or implants to

have integrated radio aid receivers. Professionals across agencies must work

together to ensure that this equipment is fitted, used and maintained well.

Personal radio aids are used by deaf people of all ages and in a range of

settings – including pre-school and school-age children, students in education

or training and working adults.

The listening environment in most pre-schools, schools and homes is less than

ideal and deaf children are likely to spend 40–50% of their listening time in

noisy environments. For this reason, young children as well as school-age

children can benefit from using personal radio aids.

Young children are exposed to language learning when travelling in a car or on public transport, on shopping trips, going to the park, sitting in a front-facing pushchair, at playgroups and at nursery. Radio amplification is ideal for such settings

as these are all challenging acoustic environments. Very early use of radio

amplification has been shown to offer significant benefits to deaf children.

Every deaf child should be considered as a potential candidate for

provision with a personal radio aid.

This position requires that providers ask why a deaf child **should not** be

considered as a potential candidate for a personal radio system, rather than

which child **should**. A radio candidacy form must be filled in for any new child coming onto caseload. These will be looked at twice a year by the Educational Audiologist and the Team Leader of the Hearing Support Team and a decision made on whether a system is to be issued and if not why.

Radio systems will be given to children to be used at home and at school. However, in a small number of situations the radio systems will be school based, due to family circumstances or personal preference of the family.

It is important that those coordinating the provision of radio aids should:

• have access to the necessary test equipment

• have up-to-date knowledge and skills so that they are able to follow appropriate

procedures

• follow published guidelines where appropriate

• understand the legislative requirements relating to services and provision.

**Use of Radio Aid Systems**

There are many factors that should be taken into consideration when issuing radio aids to children and young people.

1. There should be an identified budget and clear accountability for funding

personal radio aids where the candidacy criteria are met.

1. The personal radio aid must be set up with the child’s individual hearing aids or implants to ensure that the radio signal provides the desired advantage.
2. The child’s listening response must be checked with the complete system in place.

1. 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. Ongoing training for all those involved is an important part of good management and use, as is routine testing and monitoring of the equipment.
2. The successful management and use of the system depends on shared

ownership and partnership between the child, parents and professionals.

The benefit of personal radio systems for deaf children is highly dependent

on an understanding of how to use the system correctly. Its success is also

dependent on sensitivity and positive attitudes of all those involved.

1. A programme for developing best use and management of personal radio aids should be agreed, recorded and reviewed at least annually. There should be ongoing training programmes for all those involved in the use of radio aids to match changes in the child’s needs, equipment, personnel and when and where the radio aid is being used.
2. Targets for developing skills in the use and management of the equipment should be set and the child’s understanding of the equipment and how independent they are in using it recorded.
3. Services should ensure that families are able to use radio systems outside the classroom, in homes and at out-of-school activities.
4. Electroacoustic checks must be performed regularly and whenever a part of

the system is changed. Complete regular (test box) checks in order to

compare the frequency response curves with baseline settings provided at the

time of set-up.

1. Evaluation is an important aspect of the fitting and ongoing use of a personal

radio aid. Speech testing in quiet and babble noise should be used.

Subjective and objective evaluation of a personal radio aid system to

determine its benefit must be carried out. Both subjective and objective

measures are important for a comprehensive assessment.

Subjective checks of personal radio aids must take place regularly. Listening

checks of the radio aid system should be carried out, with and without the

hearing aids, using appropriate devices such as a stetoclip for hearing aids,

monitor earphones for cochlear implants, listeners for bone conduction

hearing implants, or a dedicated headphone set for the radio system.

1. Objective tests should be carried out every half term or whenever a

problem with equipment arises.

Observation and questionnaires are important to seek the views of those

working with the child, including parents, when the system is used at home.

The child should understand the purpose of the radio aid and you should seek

their views where possible.

1. Provision should be made within service policy to cover replacement, loan and upgrades of systems. Detailed records of equipment, settings and frequency response curves should be kept for each child.

Clear routines and procedures for the maintenance of equipment are in

place. Potential loss, damage or insurance issues should not be a barrier to

children using the equipment at school and outside of school.

1. There should be consultation between health and education professionals to ensure compatibility between the radio system and hearing aids or implants, and how appropriate they are in meeting the child’s needs.

**Use of personal radio aids with soundfield systems**

Soundfield is an increasingly popular system designed to improve listening

conditions for all children in the classroom. It does this by providing a

consistent level of sound from the primary source, usually the teacher,

throughout the classroom at an approximate advantage of 10dB above the

minimal background noise. It cannot provide the higher signal-to-noise ratio

that is required for deaf children and should not therefore be seen as an

equivalent replacement for a personal radio aid system. Most deaf children

who wear hearing aids or implants continue to need the superior signal-to noise ratio provided by personal radio aid systems.

A soundfield system does not alleviate the difficult listening conditions created

by high reverberation levels or excessive background noise. These issues

should be addressed before introducing soundfield systems by taking the

corrective action set out in guidelines such as *Acoustic Design of Schools: Performance standards* (2014) which applies in England.

Where soundfield systems are used in conjunction with personal radio aids, equipment must be selected and set up to ensure that the performance of the personal radio aid system is not compromised.

There can be a number of advantages for a deaf child when a personal radio

system is combined with a soundfield system. However, such systems must be

regularly and sensitively evaluated to ensure optimum use and benefit. This

should include asking the deaf child’s opinion.

(from NDCS Quality Standards for the use of personal radio aids)

For each child coming onto caseload a radio aid candidacy form should be filled in as soon as appropriate information is known about the use of hearing aids and opinions of the parents have been obtained (see below).

**Candidacy for Radio Aid Provision Teacher:**

**Date:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name:** | | **ID:** | **NCY:** |
| **Hearing Aid / CI?** | **R** | | |
| **L** | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hearing Loss** | | | | |
| **Mild** | **Moderate** | **Severe** | **Profound** | **ANSD** |

|  |
| --- |
| **Name of school: Special school** yes/no |

|  |  |
| --- | --- |
| **Audiology** | **Yes/no** |
| Consistent use of hearing aids? (all waking hours) |  |
| Consistent use of C.I.? |  |
| The family routinely performs listening checks or verification procedures |  |
| Are parents in favour of a radio system |  |

|  |
| --- |
| **Reason for Radio Aid Consideration (TOD/parents/setting/school observations)** |
|  |

|  |  |
| --- | --- |
| **Decision to provide a radio aid (discussion between team leader and educational audiologist)** | |
| **FM system to be issued** | **FM system not currently appropriate** |

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| --- |
| **Comments:** |