BRITISH ACADEMY
OF AUDIOLOGY

Guidance on Referral for MRI by Audiologists

PRODUCED BY: Service Quality Committee

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1 INTRODUCTION

1.1 Context of document.

This document aims to offer general guidance on non-medical referral for Magnetic Resonance Imaging (MRI) for suspected acoustic neuroma (vestibular schwannoma). It is strongly recommended that Audiology services work closely with their local ENT and Radiology services to develop local policies and procedures to ensure the safe, effective and efficient use of local resources.

This document does not provide specific detail about the content of such policies and procedures.

1.2 Scope of document

The use of non-medical referrers for radiological investigations is an increasingly accepted approach to the delivery of new and innovative service models within the UK NHS[3]. This includes Audiologists as non-medical referrers for Magnetic Resonance Imaging (MRI) for suspected Acoustic Neuroma.

This document is intended to provide guidance to Audiology Service Leads when setting up non-medical referral pathways and for Audiologists being asked to undertake this activity.

1.3 Disclaimer

The BAA Service Quality Committee takes great care to produce the highest quality documents and guidance through consultation and reviewing evidence. Each document is written with consideration of research evidence, clinical practice documentation, expert opinion and clinical consensus from which clinicians and managers can make informed decisions, within the scope of the document. In addition, the documents can help inform allied health professionals, government agencies and the hearing health-care industry about current best-practice. The BAA disclaims any liability to any party for the accuracy, completeness, or availability of the documents, or for any damages arising from the use of the documents and the information they contain.

2 BACKGROUND

Direct referral to Audiology for adults with suspected hearing loss is now standard practice across the UK. Clear guidelines have been developed to identify criteria for referral back to a GP or onward referral to Ear, Nose and Throat (ENT) or other specialist services[1]. For the purposes of this document, the term 'ENT' is taken to mean all medical professionals working within the local ENT department,

Traditionally, where unilateral symptoms exist, Audiologists refer to ENT, however it is becoming increasingly more common practice for Audiologists to refer directly to Radiology for MRI of the internal auditory meatus (IAM).

This document aims to provide guidance on the key issues that need to be considered when setting up non-medical referral pathways for Audiologists within an Audiology Service.

3 WHO CAN BECOME NON-MEDICAL REFERRERS?

Audiology direct referral assessments must be conducted by a qualified and registered Audiologist or Clinical Scientist (Audiology) working within their scope of practice.

There should be a clear protocol within the department indicating which staff members have the authority to make non-medical referrals.

4 LOCAL POLICIES AND PROCEDURES

In order to prevent unsafe / inefficient practice, robust protocols should be developed in conjunction with your local ENT and Radiology Services and in line with your Health Board or Trust Policies.

Local policies / procedures should include, but are not limited to, detail about:

- Named staff with the authority to make non-medical referrals
- Initial and ongoing training and education
- Range of procedures entitled to request
- Referral criteria including contraindications
- Requesting imaging
- Receipting, reporting and acting upon results (including those with implications outside the scope of practice of the Audiologist)
- Clinical supervision
- Quality Assurance

Further information relating to these sections can be found in the next sections.

5 INITIAL AND ONGOING TRAINING AND EDUCATION

Local education and training requirements may vary but are likely to include:

- An understanding of the necessary legislation and organisational policy
- Attendance at radiation awareness training sessions
- Attendance at local Radiology department to ensure understanding of practical aspects of radiological examinations, image reporting and outcomes
- Ongoing attendance at radiology training sessions / meetings to highlight any changes in practice

Additionally, where referrals are being made under the scope of autonomous healthcare professionals, referrers must be able to demonstrate their understanding of results and the appropriate actions required.

It is recommended that education and training is formally documented and that application to be included on a local non-medical referrers register is completed where necessary.

6 RANGE OF PROCEDURES ENTITLED TO REQUEST

This should be agreed with both local ENT and radiology departments to ensure that the procedures requested are safe and appropriate.

7 REFERRAL CRITERIA AND CONTRAINDICATIONS

It is essential that local criteria and contraindication for referral for MRI are agreed in conjunction with local ENT and Radiology services, however, of note are the following sources of information:

Guidance from the British Association of Otorhinolaryngologists Head and Neck Surgeons (2002)[2] suggests: *'Acoustic neuromas should be suspected in patients who present with unilateral or asymmetrical auditory symptoms (hearing loss or tinnitus). Magnetic resonance imaging represents the method of choice for identifying the minority of these patients who have an underlying acoustic neuroma'*.

The current Nice Guidance: Hearing Loss in Adults: Assessment and Management (2018)[1] suggest referral for MRI if there is "an asymmetry on pure tone audiometry of 15 dB or more at any 2 adjacent test frequencies, using test frequencies of 0.5, 1, 2, 4 and 8 kHz", or in the presence of 'localising symptoms' (e.g. facial pain / weakness) in the absence of any asymmetry.

Possible contraindications to safe MRI include (but are not limited to):

- heart pacemaker or cochlear implant – MRI not always possible (suitability should be checked on a case by case basis)
- brain surgery resulting in an aneurysm clip or shunt
- metallic implants, foreign bodies, stents or heart valves
- worked with welding / lathe equipment or had a penetrating eye injury

- pregnancy
- problems lying flat
- claustrophobic

Approximately 2% of referrals will result in a 'positive' finding (i.e. detection of acoustic neuroma)[3-5], although there will inevitably be a similar, if not slightly higher rate of incidental findings that will also require appropriate action.

8 REQUESTING IMAGING

Where referrals are being made under the scope of autonomous healthcare professionals, referrers must be able to justify their request and demonstrate their understanding of, audiology related, results and the appropriate actions required.

It is the responsibility of the non-Medical Referring Audiologist to ensure that the Radiologist is fully aware of the imaging being requested and its justification.

9 RECEIPTING, REPORTING AND ACTING ON RESULTS

Once the MRI has been performed it is essential to receipt and action an appropriate outcome in a timely manner and as agreed locally with ENT. This may include:

- Writing to the patient with results in cases of scans with no abnormality or no findings detected.
- Discussing with and referring patients to ENT in cases of detected acoustic neuroma.
- Discussing with and referring patients to ENT, GP or other specialities in cases where scans report an abnormality or other finding outside of the audiologist's scope of practice / unrelated to initial request for imaging. The process for this should be clear and developed in conjunction with ENT to ensure that there is an effective and timely referral for patients who need immediate and / or urgent referral to other specialities.
- Chasing up scan results that have not been received back from radiology within the expected time-frame.
- Updating the patient's records with all outcomes.

10 CLINICAL SUPERVISION

Supervision should be provided by clinical / service leads in audiology, as well as with a named ENT professional, so that advice can be sought when needed.

11 QUALITY ASSURANCE

To improve the efficiency of such a service, an audit plan should be agreed between local Audiology, ENT and Radiology services. This should include the methods for data sampling and should ensure robust evaluation of:

- Quality of referrals from Audiology to Radiology
- Appropriateness of decision not to refer
- Appropriate recording of results
- Appropriate clinical action taken
- Management of adverse incidents and near misses

12 CONCLUSION

Audiologists can have a safe and effective role as non-medical referrers for MRI for patients presenting with asymmetric hearing loss.

It is essential that local policies and procedures are developed and implemented in conjunction with local ENT and Radiology services.

REFERENCES

[1]Hearing Loss in Adults: Assessment and Management (2018). NICE

[2]British Association of Otorhinolaryngologists Head and Neck Surgeons; Clinical Effectiveness Guidelines, Acoustic Neuroma: Document 5 (Spring 2002)

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[4]Vanderveldea C., Connora S.E.J., (2009). Diagnostic yield of MRI for audiovestibular dysfunction using contemporary referral criteria: correlation with presenting symptoms and impact on clinical management. Clinical Radiology 64, 156-163

[5]Wong B.Y.W., Capper R. (2012) Incidence of vestibular schwannoma and incidental findings on the magnetic resonance imaging and computed tomography scans of patients from a direct referral audiology clinic. The Journal of Laryngology & Otology, 126, 658–662

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