Evidence Based Intervention

Open MRI

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Policy: Open MRI

Magnetic resonance imaging (MRI) is a medical imaging technique that may be used to help diagnose or monitor treatment for a variety of conditions. Open MRI machines are not as enclosed as the traditional MRI machines and instead have magnets at the top and bottom of the machine, leaving it open on all four sides.

Recommendation

Open MRI scanning is not routinely available in the NHS and patients should not be referred to a private scanner without prior authorisation from the patients ICB and where one of the following two indications applies.

Category 1 – Claustrophobia:

- Before referral to an MRI service all patients must be offered behavioural therapy in Primary Care including Cognitive Behavioural Therapy and other self-help help techniques.
- The need for MRI must be considered prior to making a referral.
- Open MRI for claustrophobia will only be funded where the purpose of the MRI is to assess for a potentially life-limiting or life-threatening condition.
- The suitability of other imaging modalities should also be considered before referral.
- All patients must have attempted an MRI for the current referral/body part at an NHS trust in the first instance before being considered for referral to an open MRI scanner.
- In the first instance all referrals will be reviewed by a Radiologist.

The Radiology department can meet with any patient that has concerns regarding MRI scanning to alleviate any fears and provide coaching. Radiology departments may offer different equipment such as eye masks or telescopic mirror to look out of the scanner or avoiding the use of pillows to increase the distance from the bore of the scanner. Patients may be able to bring a music CD, or potentially be accompanied and supported by a family member or friend. After seeing modern MRI scanners some patient will decide to try and undergo the MRI scan and be successful.

If fears cannot be alleviated or the patients fails to tolerate the scan, other modalities e.g. CT scan can be considered as an alternative if suitable. If these are not suitable, the referring clinician in discussion with the radiology department/radiologist should agree on alternative measures including use of newer machines which are wider and allow more time to spend reassuring the patient and/or undertaking procedure using an appropriate oral sedation (eg. diazepam).

The sedation prescribing would be from within the hospital, most likely the referring team. The prescription should not be requested from General Practice. It is expected that all the Radiology departments should have a policy in place as per The Royal College of Radiologists guidance on Sedation, analgesia and anaesthesia in a radiology department.

Should the patient fail to tolerate the MRI scan with above measures and following MDT the radiology team feel that an open MRI scan is required, the patient will be referred back to their responsible clinician where a funding request can be made on behalf of the patient for an open MRI.

To approve under this category, the funding request would need to evidence:
- the need for an MRI to assess for potentially life-limiting or life-threatening condition;
- that the sedation pathway has been followed or was contraindicated for this referral/body part;
- the date of the failed scan;
- the outcome and recommendations from the radiology MDT.

Category 2 - Patient Size:

The size of a patient and the restriction of the MRI scanner tunnel will vary depending on the patients and the circumstances. Some patients may be large but would still be suitable for a conventional closed MRI.

In the first instance, the patient should be invited to attend the radiology department and be formally assessed by the radiology service for suitability. If the closed MRI is not suitable either because:
- the patient's weight exceeds the maximum the MRI table can accommodate OR
- the patient is unable to fit through a conventional MRI scanner due to body size/shape.

If, after review, the radiology team still feels that an MRI scan is needed, then the patient could be considered for an Open MRI scan.
Radiology will return the referral back to the referring clinician where a request for a referral to an open scanner can be made.

To approve under this category, the request will need to provide evidence regarding issues of size including a recent BMI if related to obesity.

Rationale
The evidence base for use of open MRI is limited. Open MRI is not suitable for all parts of the body. Images produced from an Open MRI are lesser quality than a closed MRI. Closed MRI is often faster. The below links give narrative comparison and a table of comparison of the Open and closed MRIs.

https://www.independentimaging.com/open-mri-vs-closed-mri-difference-one-bestsuited/
https://www.healthimages.com/open-mri-vs-closed-mri/

Increasing demand for MRI scanning as key part of care pathways resulting in higher numbers of patients experiencing claustrophobia during a scan.

The increase in rates of obesity in the population, particularly morbid obesity, and the increasing availability of different types of scanners has led to an increase in requests for open MRI.

Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. Individual cases will be reviewed as per the ICB policy.

Change History:

Version	Date	Reviewer(s)	Revision Description

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