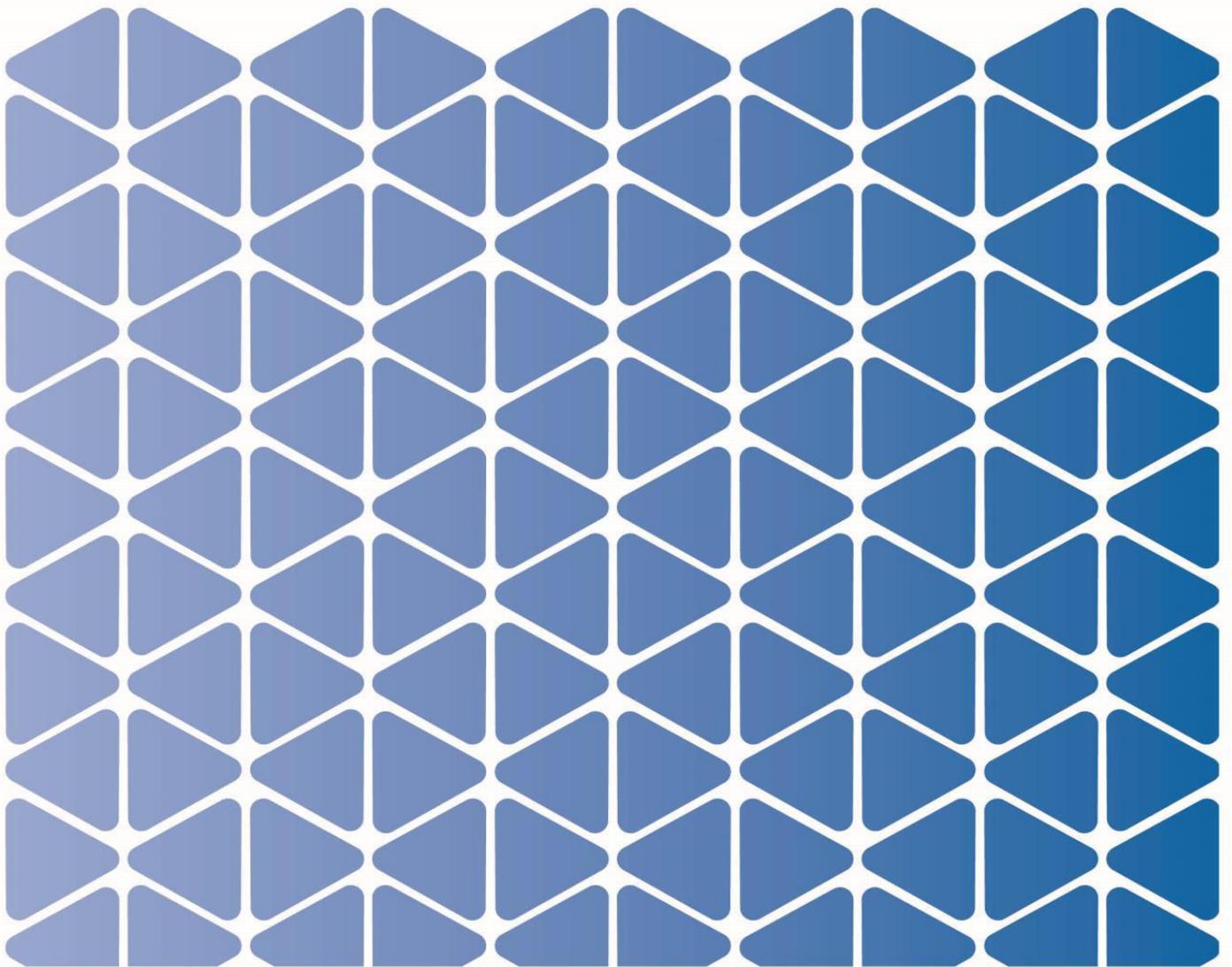




PATIENT INFORMATION

MRI Procedure Information Leaflet

**MRI SCAN UNDER ORAL
SEDATION**



It has been recommended for your child to have an MRI scan under oral sedation.

MRI scan stands for Magnetic Resonance Imaging. This is a modern scanning technique using a large magnet and a powerful computer, which produces high quality pictures of various parts of the body without using x-rays. It is a non-invasive and totally painless procedure, but the scanner itself is very noisy and the tunnel where the patient lies is quite small. The scans last for about 20-60 minutes depending on which part of the body is scanned and it is vitally important to lie very still for accurate results. Children who are too young to understand these explanations may be frightened by the noise and confined space or just generally too bored to keep still. Most sedated children sleep through the scan but if a child were to wake the scan would continue if they remain still and are not distressed.

This leaflet explains some of the benefits, risks and alternatives to having an MRI scan under oral sedation. We want you to have an informed choice so you can make the right decision for your child. Please ask your Paediatrician or the MRI department about anything you do not fully understand or want to be explained in more detail.

We recommend that you read this leaflet carefully. You and your doctor (or other appropriate health professional) will also need to record that you agree for your child to have the procedure by signing a consent form, which your health professional will give to you.

Benefits of the procedure

The aim of the MRI scan is to aid further diagnosis and future treatment/management.

Serious or frequent risks

MRI scans are commonly performed and there are very few risks known to be associated with them. Although the strong magnetic field is not harmful in itself, implanted medical devices that contain metal may malfunction or cause problems during an MRI exam. The MRI department will ask you to fill in a simple safety questionnaire before your appointment to assess any potential hazards to your child's safety. A parent is allowed to accompany their child in the scanner room as long as they have completed a safety questionnaire also. If you are pregnant you will not be able to escort your child. However you may wish to bring another relative or friend who is a familiar face to your child.

There are several infrequent and rare risks of sedation which include problems with:

- Breathing
 - Sedation can occasionally cause respiratory depression. A trained nurse will be allocated to care for your child on a one to one basis to carefully monitor your child's breathing throughout the procedure.
- Central Nervous System
 - Headaches, confusion, loss of co-ordination and agitation. Your allocated trained nurse will assist you in maintaining your child's safety and comfort until their sedation has worn off.
- Digestive System
 - Can cause mild gastric irritation such as vomiting or diarrhoea. Your child will need to tolerate diet and fluids before they are allowed home.
- Skin
 - Can cause minor rashes which normally disappear without the need for any specific treatment.

A skilled team of nurses and radiographers who are involved in performing this procedure on a regular basis will care for your child. If problems arise, we will be able to assess them and deal with them appropriately.

Other procedures that are available

Sometimes it can be successful for your child to not need sedation and stay still for the scan during their natural sleep (i.e. after a milk feed). This should be discussed with your paediatrician or the MRI superintendent before your admission. Sometimes the sedation does not work or is inappropriate for your child and they may need a general anaesthetic to ensure they stay still for the scan. This can be done at Worcestershire Royal Hospital if your child is over 2 years of age but would be carried out at a different hospital if your child was less than 2 years old and would need to be fully discussed with your child's Paediatrician before this decision could be made.

If your child needs any blood tests or further investigations these may also be carried out once the scan has been completed whilst your child is still asleep. A topical anaesthetic numbing cream can be applied to also reduce any distress from blood tests.

Your child's pre-scan instructions

You will be asked to ring the MRI department to confirm and accept your child's appointment. You will also be asked to ring the children's clinic once you have your appointment for your child's scan to discuss with a nurse the fasting instructions that will be needed for the sedation. The sedation will make your child sleep very heavily

so it is recommended that their stomach is empty to avoid any vomiting. The nurse will instruct you over the phone of when your child can have their last diet and fluid intake. It is very important that you adhere by this as otherwise the scan can be cancelled.

The members of the nursing team will check that you agree that your child should have the planned procedure. Please bring your child's consent form (which you were given in outpatients) making sure that you have read and understood the form before your clinic visit. If you have not understood any part of the information, you will be able to ask any questions you may have about your child's planned scan.

Preparation

There are a few things that you can do to prepare your child for coming into hospital.

- Please complete the patient screening form which should be sent to you by the MRI department.
- Ensure the NBM (Nil by Mouth) times are followed correctly.
- Dress your child in clothes with NO metal work i.e. no zips or poppers on clothes (this can affect the scan and the scanner can cause the metal to heat causing burns to the skin)
- Lunch can be provided for your child but if they are on formula milk or have specific jars of baby food then please bring those in for after the scan as your child will need to take some diet before they can go home.

Please phone the hospital if your child develops an illness such as a severe cough or cold, or if they have been in contact with any infectious diseases (e.g. Chickenpox) shortly before the day of the scan. If they are too unwell to attend then another appointment will be given as soon as possible.

On the day your child is admitted to hospital

Nothing to eat and drink (Nil by Mouth)

We have clear instructions about eating and drinking before sedation. It is important for your child to follow these.

If there is food or liquid in your child's stomach during the sedation, it could come up into the back of their throat and damage his or her lungs.

These are the latest times that you should give your child anything to eat or drink before their scan under sedation:

- Up to six hours before their scan, your child can have a light meal, a glass of milks or a fizzy drink. Bottle-fed babies can have formula feed.
- Up to four hours before their scan, babies can have breast milk.
- Up to two hours before their scan, all children and babies can have a drink of water or diluted squash but not a fizzy drink.

Delaying the scan

Occasionally the nurse or doctor may learn something about your child that means it would be safer not to do the procedure on that day.

This could also happen if your child has a bad cold, has a rash or has eaten food too recently.

Going to the scan

- Your child will be admitted to the children's clinic for the procedure where the sedation will be given.
- On arrival your child will be weighed in order to give the correct dose of sedation.
- They will be assessed by the nurse looking after your child and baseline observations will be carried out such as checking your child's temperature, blood pressure, pulse, respiratory rate and oxygen levels to check that your child is well enough to have the procedure. Unless you have any concerns you will not see a doctor before the sedation is carried out.
- Your child will need to either take the sedation medicine orally, or it can be given rectally via a small tube. It is very important that your child swallows the whole of the medication as it cannot be repeated and this can determine how successful the scan will be, as your child may not fall asleep. The medicine does have a bitter after taste and as an alternative can be given rectally. This is only possible if your child has had their bowels opened that day, as the stimulus of being given the sedation rectally can cause them to have their bowels opened and this prevent them from absorbing an adequate amount of effective sedation. You can discuss how you wish your child to take the sedation when you ring for the fasting instructions.
- Your child will be able to keep their clothes on if there is no metal work present; all metal work must be removed such as jewellery prior to the scan.
- Your child once asleep will be transferred onto an MRI trolley and taken up to the scanning room (which is on the 2nd floor of the hospital)
- A paediatric trained nurse will accompany you and your child to the MRI department and remain with you throughout the procedure. Your child will be able to take a toy or comforter with them as long as it is again metal free.
- The nurse will monitor your child closely to ensure their safety throughout the scan, observing their breathing, colour, heart rate and oxygen level. The scan can be stopped at any point if there are any concerns or if the child was to wake and be upset. It may be possible to resume the scan once any concerns are dealt with, or if the child settles back to sleep within the allotted scan time. Some children may wake up during the scan but as long as they remain still the scan will continue.

In the MRI scanner room

Your child will be taken into the MRI scanner room to have their scan once they are asleep. The duration of the scan is dependent on what is being scanned. i.e. brain, eyes, spine etc. generally takes 20-60 minutes. At certain times during the procedure, the MRI scanner will make a loud knocking noise. You and your child will be given earplugs or headphones to wear. Once the scan is completed your child will be moved out of the scanner room and returned to the children's outpatient clinic/ward to recover from their sedation.

After the sedated MRI scan

The paediatric trained nurse will continue to monitor your child closely until he or she has regained consciousness. Some children wake up soon after their sedated scan whilst others may need to sleep for an hour or two afterwards. Once they are awake they will be able to have something to drink and then something to eat. Due to the effects of the sedation on the central nervous system, they may remain unsteady when sitting or whilst standing on their feet. They will require adult supervision at all times whilst recovering and you may find that the drowsiness may persist into the following day. As soon as your nurse is happy that your child has made a satisfactory recovery from their sedation and that they have tolerated diet and fluids they will be allowed home.

Side effects and complications

Most children recover quickly and are soon back to normal after their sedation. Some children may suffer side effects like sickness or a mild skin rash. These usually last only a short time and there are medicines available to treat them if necessary. The risk of complications is rare and all children are carefully assessed prior to receiving the sedation. Occasionally the sedation is not effective and we are unable to perform the scan, if this happens the need for further sedation or a general anaesthetic can be discussed with your consultant.

Leaving hospital

Length of stay

All children having an MRI scan under sedation should be able to go home the same day.

Convalescence

How long it takes for your child to fully recover from the sedation varies from child to child. You may find that they remain sleepier than usual for the remainder of their admission day and possibly into the following day. As a general rule, children need not be restricted in their usual activity, but close adult supervision is advised particularly during the first 24 hours post sedation. If your child attends a nursery, he/she will be

able to return the next day. The majority of children recover very quickly and easily from their sedation.

MRI scan results

As your MRI scan will need to be studied by the radiologist and possibly a number of other related specialists, it is unlikely that the results of your scan will be known immediately. The radiologist will report their findings to the doctor who arranged the scan, who will discuss the results with you. Unless they are needed urgently, it usually takes a couple of weeks for the results of an MRI scan to come through.

Post discharge

Should you have any worries or concerns within the first 24 hours after leaving the clinic/ward please feel free to contact us.

Contact details

If you have any specific concerns that you feel have not been answered and need explaining, please contact the following;

- Children's outpatient clinic, Worcestershire Royal Hospital
Phone: 01905 733476/733477
- MRI department – Please ask for the superintendent or the deputy
Phone: 01905 760546
- Riverbank unit nursing staff, Worcestershire Royal Hospital
Phone: 01905 760588
- Ward 1, Alexandra Hospital, Redditch
Phone: 01527 512095
- Your consultants secretary via the hospitals switch board
Phone: 01905 763333

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PET@nhs.net

Opening times:

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.