Patient information sheet

METRIC Patient Information Sheet

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This patient information sheet is intended for informing patients about the METRIC study

MREnterography or ulTRasound In Crohn's disease (METRIC)

A comparison of Magnetic Resonance Imaging (MRI) and Ultrasound scan for diagnosing small bowel disease.

We would like to invite you to take part in our research study. Before you decide if you would like to be involved, we would like you to understand the research. This Information Sheet will explain the nature and purpose of this research project how you would be involved in the research, if you decide to take part.

A member of our team will go through the Information Sheet with you and answer any of your questions. You may take as long as you wish to decide whether or not to participate. If you are seeing this Information Sheet and Consent Form for the first time at your clinic appointment, then please feel free to take them home with you to consider further and discuss with others. In such a case we will ask your permission to contact you to see if you are still interested in participating. Alternatively, if you feel that you have had as much time as you wish to consider the matter, and you wish to do so, you may consent to take part straightaway. (Part 1 tells you about the purpose of this study and what will happen to you if you take part. Part 2 gives you more detailed information about the conduct of the study.)

Please ask us if there is anything that is unclear.

PART 1

What is the purpose of the study?[1]

Crohn's Disease is a type of inflammatory bowel disease that may affect any part of the digestive system, but mostly affects an area called the small bowel. The position of the small bowel in our bodies makes it difficult for doctors to view the area in order to decide if a patient has Crohn's Disease and how badly the Crohn's Disease is affecting the small bowel. We understand that you might not have been diagnosed with Crohn's disease but if you have in the past, you may be familiar with some of the imaging tests that doctors use to view the small bowel. Commonly used tests are barium follow through, Colonoscopy and Computerised Tomography (CT). More recently some

doctors have been using Magnetic Resonance Imaging (MRI) or Ultrasound Scanning to look at the small bowel of patients who have or are suspected of having, Crohn's disease.

The reason for this research is to compare MRI and Ultrasound Scanning to see which is better at detecting inflammation of the small bowel, caused by Crohn's disease, and how badly the bowel is inflamed. Neither MRI nor Ultrasound Scan use radiation, which is an advantage.

Why have I been invited to take part?

You are being invited to participate in this study because your doctor would like you to undergo tests to look at your small bowel to check for inflammation. It may be that you have recently been diagnosed with Crohn's disease and your doctor would like to check to see if there is any inflammation in your small bowel. Alternatively, you may have had Crohn's disease for a while and your symptoms have been worsening, so your doctor wants to check if your disease has come back in the small bowel.

As noted above, we understand you may not have been diagnosed with Crohn's disease but because you are undergoing tests to look at your small bowel, we would still like to invite you to take part in the study.

Do I have to take part?

It is up to you to decide whether or not to take part. You may take as long as you wish to decide. If you take the Information Sheet and Consent Form home with you for further consideration we will contact you within the next few days regarding your possible participation. If you agree to participate we will make arrangements for you to sign the Consent Form in the presence of a member of our research team prior to your entering the study. You are free to withdraw at any time, without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you receive. **What will happen to me if I take part?**

Your involvement in this research will be over a period of 6 months. The whole study itself will take 2 years and 5 months to complete, in order to give time to recruit enough patients.

If you take part in the study we will ask you to do the 3 things described below.

1. Undergo a MRI scan and an Ultrasound Scan of your bowel.

If you take part in the study we will not change the tests your doctor would normally request nor the treatment you receive. For example, your doctor may wish you to undergo colonoscopy or a barium follow through test and we will not interfere with this. The MRI scan and Ultrasound Scan will be additional.

It is possible that your doctor already wants you to undergo one or both of these tests anyway as part of your usual care. If so, the tests will be carried out in the same way but we will collect more details about what the scans show. It may be, however, that one or both of these tests are in addition to the investigations your doctor would normally perform.

We will let your doctors know the results of the MRI and Ultrasound Scans so they can use the results to plan your care if they wish. If the MRI and Ultrasound Scan disagree about whether there is any abnormality in your small bowel, we will need to work out which is right, so your doctor may ask you to undergo an additional test of your bowel. The results of the additional test will help us work out whether it was the MRI or the Ultrasound Scan which was correct. The choice of additional

test will be made by your doctor and they may decide, for example, to perform a CT scan or a barium follow through, if you have not already had one. The results of this additional test will also be made available to your doctor so they can use it to plan your care.

If you decide to take part, and sign the Consent Form, your doctor will arrange for your MRI and Ultrasound scans. If, within the 4 weeks before you sign the Consent Form, you have already undergone MRI as part of your usual care there is no need for you to repeat the scan. Instead, one of the study radiologists will look at the scan that you already have to get the information we need for the study. If you have already had an Ultrasound Scan as part of your normal clinical care we will need to repeat it. This is because it is very important that the radiologist/sonographer performing the Ultrasound Scan does not know the results of all the other tests you have had because it may influence how they interpret the scan.

We will follow your care for 6 months to collect information about the scans and investigations you have, the treatment you receive, and the results of any surgery and biopsies. You are not required to undergo any additional biopsies for the study, but if you do have any tissue taken from your bowel during you normal clinical care, we will ask the local pathologist to grade the amount of inflammation (if any). We ask you to agree to the research team looking at the results of any clinical tests related to your bowel performed before the date you sign the consent form to help us later decide to whether MRI or Ultrasound Scanning is better at detecting inflammation of the small bowel, and how badly the bowel is inflamed

2. Provide a stool and blood sample and complete a short questionnaire about your symptoms

Once you have signed the Consent Form, your doctor will ask that you supply a stool sample and blood sample in order to test for proteins that are related to inflammation in the small bowel. We will give you full instructions about how to collect the stool sample in an easy and clean way. The amount of blood needed for the test is small (about a tea spoon). You will also be asked to complete a short questionnaire called a Harvey Bradshaw Index, which is a list of 5 questions regarding your symptoms. This takes about 5 minutes. Your doctor will also need to perform an abdominal (tummy) examination if they have not already done one. If, before you sign the Consent Form, you have already undergone testing of your blood or stool or had the Harvey Bradshaw Index recorded as part of your usual care, there is no need for you to repeat these if they were done within 3 weeks of the date of the MRI or Ultrasound scan.

We wish to repeat the stool sample, blood test, abdominal examination and Harvey Bradshaw Index questionnaire around 3 months after you join the study and we will arrange for this if you agree. The information provided by the stool sample, blood test and symptom questionnaire are very useful to us to understand how good MRI and Ultrasound Scan are at assessing the small bowel, but you might not want to provide blood or stool sample for analysis. If this is the case then you will be able to stay in the study and only the results of your imaging tests will be used.

3. Complete questionnaires about your experience of the tests you undergo and record a diary about any health related treatment or advice you need for a period of 6 months.

Diaries and questionnaires will be handed to you in person at consent. Additional diaries and questionnaires can either be provided when you return for your 3 month visit or posted to you. *Your local nurse or research fellow from University College London Hospital will remind you by phone, post or email (as you prefer) to complete questionnaires at the appropriate time.*

Test Experience Questionnaire

On the day of the MRI scan, you will be asked to partially complete a questionnaire about your experience and how you felt after the scan. You will be asked to take the questionnaire home with you and complete the second half two days after the scan. You will be provided with a stamped address envelope for return of the questionnaire to the Research Team, in the post. The questionnaire will take about 15 minutes in total to complete

A second questionnaire will be in the registration pack given to you at consent, along with a stamped addressed envelope for its return. You will be instructed to return the questionnaire after you have completed all the imaging tests of your bowel (both the MRI and Ultrasound Scan, and any other tests your doctor has requested as part of your normal clinical care). The questionnaire will ask you about your experience of all of the imaging tests that you underwent during the first part of the study. It will also ask questions about your overall mood, as well as what you considered to be positive and negative features of the scans. This questionnaire will take up to 30 minutes to complete.

Quality of Life Questionnaire

You will be asked to complete a questionnaire specific to your quality of life, at consent and at 3 and 6 months, which take about 10 minutes to complete. This information will be used in our assessment of the value for money of MRI and Ultrasound Scan because how the scanning process makes people feel is an important part of this assessment.

Resource Use Diary

You will be provided with a diary at consent. You will need to use it to record all visits to hospital and to your GP. You will also be asked to use it to record any community care, medications and investigations that occur over the 6 month period of follow up from recruitment. These diaries will be collected at 3 months and new diaries will be issued in order to capture information for the last 3 months of the study. The diary will take about 5 minutes a day to complete. Again, we will use this information to work out the value for money of using MRI Imaging and Ultrasound Scan.

You will be able to stay in the study regardless of whether you decide you do not want to complete some or any of the questionnaires. If you do not wish to complete the questionnaires, only the results of your imaging tests will be used.

Additional Ultrasound Scan studies

We are also running two closely related but separate studies on Ultrasound Scan. By taking part in the main METRIC study described above you are under no obligation to undergo these additional studies, and we will ask you to confirm that you would like to take part, by initialling relevant sections of the Consent Form.

The first additional study is to see how well radiologists/sonographers agree with each other when they perform an Ultrasound Scan of the bowel. If you consent to this study, after the first radiologist/sonographer has performed an Ultrasound Scan of your bowel, another radiologist/sonographer will repeat the examination straight afterwards, and we will compare their findings. Once we have reached the recruitment target for this additional study we will no longer recruit or ask for your consent to be recruited into this sub-study.

The second additional study is to see whether we can improve the Ultrasound Scan technique by asking patients to drink a liquid before the scan (also called “hydrosonography”). The study is

explained in more detail below. Once we have reached the recruitment target for this additional study we will no longer recruit or ask for your consent to be recruited into this sub-study.

You may take part in neither, one or both of these additional studies.

Expenses and payments

Travel expenses are available, at a maximum of £21 per patient, if you need to visit hospital for additional tests specifically for this study. Please keep all receipts for your journeys. You will be provided with a travel expense form along with detailed instructions of how to claim this back once you have signed the consent form for this study.

What will I have to do?

We suggest that you read and consider very thoroughly this Patient Information Sheet, and that you take as much time as you need to think about whether you would like to be involved in this research. The Consent Form must be signed in the presence of a member of the research team following a discussion and the opportunity for you to have all questions suitably answered.

We will book your MRI (if necessary) and Ultrasound Scans. You can change your mind at any point during the study. If you sign the Consent Form and then change your mind about taking part, it is not a problem-you just need to let us know. We will give you a number to call in case you do change your mind.

We record your consent at the start of the study by asking you to sign the Consent Form. However, consent is an on-going process. Your continuing consent to take part in this study is demonstrated when you carry out tasks related to the study (e.g. completing patient diaries) and if you do not tell us you no longer want to be involved.

You will need to make sure that you attend for all of your scans and hospital appointments, or let us know if you can no longer attend the appointment.

If the final diagnosis is not Crohn's disease, your information will no longer be included in the study and you will not be asked to perform any other study processes. If you change your mind about taking part in the study, please inform us as soon as possible.

Magnetic resonance Imaging

We will ask you to come to the hospital for the scan which will take about 30 minutes. We will ask you to attend about 1 hour before the appointment of the scan to drink some liquid to fill the small bowel. This may have a slight taste but we can add fruit squash to it if you prefer. We provide around 1 litre of fluid but we understand that you may not be able to drink all of it. We will then ask you to lie in the MR scanner and we will insert a small needle into a vein in your arm. The scanner itself is like a large ring. The scanner can be quite noisy and you will be provided with headphones or earplugs. You will be able to talk to the radiographers performing your scan at all times. The scan will require you to hold your breath from time to time. You will be provided with an emergency button to stop the scan if you are worried in any way. During the scan we will give you two small injections through the needle (the injections themselves will not hurt). The injections we give have been used in day to day practice for a long time and are very safe. One injection (“Buscopan”) relaxes the bowel (and may temporally give you a dry mouth and slightly blurred vision). The second injection (“gadolinium”) is a special MRI contrast agent which helps highlight an inflamed bowel. It is unlikely

you will notice anything during this injection, although some people get a sweet taste in their mouth. Allergy to the gadolinium contrast is possible but very rare. Mild reactions (nausea, transient rash etc.) occur in less than 3% of patients and more serious reactions are much less common than this. You will be able to go home after the scan, but you may wish to allow time for this to pass before travelling because you may get diarrhoea due to the fluid we give you to drink.

Ultrasound

We will ask you to come to the hospital for the scan which will take about 20 minutes. You will be asked not to eat or drink for around 4 hours before, but there is usually no other preparation for the scan. However, you may be asked to drink one or two cups of water just before the scan. During the Ultrasound you lie on a couch and the radiologist/sonographer puts some jelly on your skin before examination of your bowel with a hand held probe. If you have consented to take part in the additional Ultrasound study, which will look at differences in how radiologists/sonographers view scans, then a second radiologist/sonographer will repeat the Ultrasound. After the scan you can go home.

Additional imaging tests

As explained above, if the MRI and Ultrasound disagree about whether there is any abnormality in your small bowel and they are the only tests you have had, you will undergo an additional test of your bowel to help us decide which test is correct. Because your doctor decides which test is used, they will explain in detail what the test will be and you will receive the usual detailed information about the test given by your hospital.

Hydrosonography

If you consent to take part in the Ultrasound Hydrosonography study we will ask you to undergo an additional Ultrasound Scan over and above the one you undergo for the main study.

Before this additional scan we ask you to drink up to 1 litre of fluid to distend the small bowel, just like for the MRI scan. So you will need to come in about 1 hour before the scan to drink the fluid.

We will arrange the additional Ultrasound scan to suit you. For example, you may wish to have both Ultrasounds on one day, or you may prefer to do them on separate days. It may be possible to perform the Hydrosonography immediately after your MRI because you will already have had the drink anyway. Your local study team will discuss this with you. As for the MRI scan, the oral contrast may cause short lasting loose stools/ diarrhoea.

It is your choice whether to take part or not in the sub study. If you do decide to take part, you will be asked to initial the optional section on the consent form. If you decide that you do not want to take part this will not prevent you taking part in the METRIC study. If you do decide to take part and change your mind in the future, you can withdraw your permission and the additional test will not be conducted.

Questionnaires, stool sample and blood tests. These components of the study are optional. The details of these are given above.

What are the alternatives for diagnosis or treatment?

If you decide to take part in this study, the methods your doctor will use to give you a diagnosis and treatment will not be any different from the tests and treatment that you would receive if you

decide you do not want to take part. The only additional requirement for this study is that you have a MRI AND an Ultrasound scan.

What are the possible disadvantages and risks of taking part?

There are very few disadvantages of taking part in the study. You will have to attend an extra appointment at the hospital for the scans and we will reimburse you for some of the extra travel expense. The details of the scans are given above.

Although MRI scans are regarded as a completely safe imaging method, we do not know for sure whether MRI is absolutely risk free during the early stages of pregnancy. Therefore, pregnant women should not take part in this study. Please tell your doctor if you think you might be pregnant.

Your doctor will decide on which additional test to use if your MRI and Ultrasound disagree about whether there is inflammation in your small bowel if these are the only tests you have had. It is possible the test they choose will use ionising radiation, for example a CT scan or barium follow through. Exposure to ionising radiation increases the risk of cancer, but the risk from a single scan (about 1/2500) is small compared to the 1 in 3 risk from all factors for everyone.

It is possible that the MRI or Ultrasound scans reveal potential problems that your standard investigations do not. If this does happen, your doctor will be told about it, so they can make a decision about how you need to be treated as a result. You may have to have more tests to investigate these new findings on the scans. Some of these tests may involve X-ray radiation or invasive biopsies to obtain tissue. However, in this case these additional tests will only be performed if your doctor requests them and thinks you need them as part of your clinical care. They are not part of the study.

What are the side effects of any procedure received when taking part?

MRI and Ultrasound are safe techniques that have no harmful side effects. There are certain precautions that are undertaken to ensure that individuals having the MRI scan can do so safely, for example, making sure that you have no metal in your body e.g. a pace maker or metal heart valve. We will ask you a set of routine questions before you are allowed to enter the MRI scanner room.

The other side effects of the scans are described above.

What are the possible benefits of taking part?

It is possible that the research may provide doctors with information about your condition which could help in your treatment, but we cannot guarantee that this will be the case. The results may help improve the diagnosis of Crohn's in the future.

What if there is a problem?

Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. The detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practices and all information collected about you during the course of the research will be kept strictly confidential. The details are included in Part 2.

If the information in Part 1 has interested you and you are considering participation in the study, please read the additional information in Part 2 before making any decisions.

PART 2

What if relevant new information becomes available?

It is very unlikely that any new information will come to light that would affect your participation in this study. However, if it does happen, your research doctor will tell you and discuss whether you should continue in this study. If this happens before you have your scans, then new information could affect whether or not you should go ahead with the tests. If you have already had your scans there is no need to worry, you will receive the most suitable care as determined by your doctor.

What will happen if I don't want to carry on with the study?

You can withdraw from the study but we would like to keep in contact with you through your doctor so that we know about your progress. Information already collected may still be used; unless you request that information already collected may be not used as part of the study. Patients not wishing to provide an initial and/or repeat blood or stool sample for analysis of inflammatory markers may consent to participate in the imaging tests only, and still take part.

What if there is a problem?

The NHS Complaints Procedure is not affected by your taking part in this study, and you can get details of this procedure from this hospital (www.ucl.ac.uk) or from the Department of Health's website (www.dh.gov.uk). Information on ethics in clinical research can be obtained from the National Research Ethics Service website (www.nres.npsa.nhs.uk).

University College London has insurance arrangements for this study. In the unlikely event that you are injured by taking part in this study, compensation may be available. If you suspect that the injury is the result of University College London's, or the hospital's negligence, then you may be able to claim compensation. After discussing this with your clinical study doctor, please make the claim in writing to Professor Stuart Taylor, who is the Chief Investigator for the clinical study and is based at University College London Hospital. The Chief Investigator will then pass the claim to the University College London's insurers.

Will my taking part in the study be kept confidential?

Yes, your taking part in this study will be kept confidential. We will, however, ask for your permission to inform your GP that you are taking part in the study and of any test results. This is a very important safety measure to ensure that your GP is fully informed with regard to your medical care.

A small amount of information about you will be sent to the Clinical Trials Unit at University College London, where the study is being run, but this will not have your name on it. Information about you and all other patients in the study will be stored on password protected computer databases and in locked filing cabinets and will only be accessible to the staff working on the study. A copy of your MRI and Ultrasound scan data will be collected by members of the research team at University College London Hospital and stored on a secure computer outside of the NHS. These images will be anonymised (they will not bear your name or date of birth). The company who will be providing this service is called Biotronics3D. Biotronics3D will store the information securely and will handle your personal data according to the data protection guidelines. They are used to working with the NHS.

Because the research team at University College London Hospital are coordinating the questionnaire part of the study, your local team may need to give them your name and contact details so they can

send you the questionnaires and reminders. This data will only be sent using secure methods approved by the NHS, and will be stored on secure password protected computers accessible only to staff working on the study.

If you undergo any biopsies of your bowel as part of your routine care, we may ask a pathologist at University College London Hospital to look at the biopsy slides to check the score of inflammation given by your local pathologist. Biopsy slides will be handled according to NHS rules about transfer of such material.

Members of the research team will have access to your data when they decide how accurate MRI and Ultrasound were in assessing your bowel.

Your information may also be accessed by authorised personnel for auditing and monitoring purposes or by the regulatory authorities for inspection purposes.

If you choose to enter the study you will be allocated a number to identify you. Information that is sent to the Clinical Trials Unit will use this number together with your initials and date of birth. Your name will never be used in any publication about this study.

You will also be provided with a summary of the findings written specifically for all the patients who took part in the clinical study.

What will happen to any samples I give?

The blood and stool samples that will be taken to test for inflammatory markers will be stored in the local laboratories at your hospital, only until they are tested, after which they will be disposed of following the Human Tissue Authority's Code of Practice.

If a patient, who has given informed consent, loses capacity to consent during the study, the data that was collected before the patient loses capacity can still be kept and used in this study.

Genetic tests

There will be no genetic testing of patients in this study.

What will happen to the results of the research study?

After enough patients have completed their treatment and enough data has been collected on the patients in the study, the Trial Statistician will perform an analysis. The results of this analysis will be published in a scientific journal. This may result in a change in the standard methods of diagnosis for patients with Crohn's Disease. None of your personal information that could be used to identify you will be used in any publications.

Who is conducting and funding the research?

This study is being conducted by the UCL Clinical Trials Unit. Professor Stuart Taylor is Chief Investigator for the study. University College London is the study sponsor.

Funding for the research has come from the National Institute for Health Research, Health Technology Assessment (NIHR HTA) programme. The Clinical Trials Unit is independent of the NIHR HTA.

Who has reviewed the study?

All studies like this one that are looking at changing current medical practice are also reviewed by an independent group of people called a Research Ethics Committee, in order to protect your interests. This study has been reviewed and given a favourable opinion by Hampshire B REC.

If after reading this you have further questions about this study, please feel free to contact the research team:

Researcher name:

Contact number:

This Patient Information Sheet is yours to keep, whether you decide to take part in the study or not. If you would like to take part in the study you need to sign the attached Consent Form and return it to one of the research team before you can take part

Reference

1. http://www.isrctn.com/ISRCTN03982913 accessed Dec 10th 2018