MRI in Pompe study

Patient information Sheet– Parents of Patients with Pompe

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Sponsor: The Newcastle Upon Tyne NHS Hospitals Foundation Trust

Chief Investigator: Professor Jordi Diaz Manera

Introduction

You are being asked to give consent for your child to take part in this research study because he/she has Pompe Disease.

Clinical research studies are research studies which include only people who freely choose to take part. Please take your time to read this information carefully. It is important that you read and understand the contents of this participant information sheet.

This participant information sheet gives you important information about the study to help you decide if you want your child to participate. It describes the purpose of this study, the study procedures, the possible risks and benefits, the amount of time required for the study, and provides information about your child rights as a study participant. Your consent is required for your child's participation.

If you are unsure of anything within this participant information sheet, or if you have any questions or queries, please discuss this with your child's study team. You can also discuss this participant information sheet with family or friends or your primary care or specialist doctor before making your decision to take part in this study. If you decide you would like your child to take part in this study, you will be asked to complete the informed consent form.

Your permission for your child to take part in this study is voluntary. You are free to say yes or no. If you do not want to participate, your child's regular medical care and legal rights will not be affected. Even if your child joins this study, you may stop his/her participation at any time and your regular medical care and legal rights will not be affected.

Please tell the study doctor or study staff if your child is taking part in another research study.

Why has my child been asked to take part?

Your child has been asked to participate in this study because he/she has Pompe disease.

Why is this study being done?

The purpose of this study is to study if glycogen and the sugar that is being accumulated in your child's muscles can be detected and quantified using a new imaging tool known as muscle magnetic resonance, specifically using carbon spectroscopy. If so, this imaging technique could be useful for 1) diagnosing patients with Pompe disease, 2) monitoring disease progression, 3) understanding if increases in glycogen in the muscle worsens muscle function and could be therefore used as an indicator to start treatment and; 4) to monitor response to enzymatic replacement therapy and other potential drugs in the future aiming to reduce the amount of glycogen in the muscles.

How many people will be involved in the study?

This study will include 20 participants – 10 people with Pompe and 10 people who do not have Pompe, but whose gender and age will be matched to the people with Pompe.

Do I have to agree for my child to take part?

Participation in the study is voluntary, you can decide whether or not you want your child to take part. If you do agree, you will be given this information to keep and will be asked to sign a form which gives your consent for your child to take part. If you do decide for your child to take part and then you change your mind, you are free to withdraw at any time and without giving a reason. This will not affect the standard of care your child receives.

What would taking part involve? What will happen if I agree for my child to take part?

If you agree for your child to take part in this study, you will be asked to sign a separate Informed Consent Form. We will answer any of your questions about the study before asking you to sign the consent form.

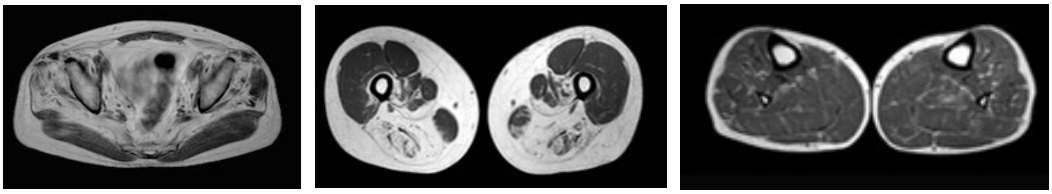
The study involves two visits, one at baseline and another visit one year after.

Both visits will include clinical assessments, collection of blood samples, a series of muscle function tests and collection of patient-reported outcome measures, performed at the Newcastle Clinical Research Facility. Muscle function tests in this study measure how your child walks, the distance they can walk in 10 seconds, and how they move in general (for example doing squats or standing up from a chair). The estimated time needed for the muscle test is two hours per participant. Both visits will also include Magnetic Resonance Imaging (MRI) scans, which will be performed at the Newcastle Magnetic Resonance Centre and which take 45 minutes per participant.

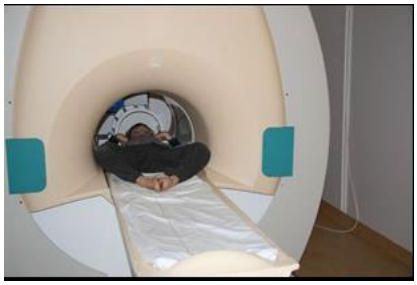
We will collect approximately 2 tablespoons of blood. Samples will be collected at the MRC Neuromuscular Biobank. Samples will not be analysed now but they are going to be stored for future studies. We plan to quantify different molecules that could be related with disease progression and muscle MRI findings such as microRNAs or cytokines. After that samples will be stored for future use in case there are new molecules described that we would like to check in the samples of these participants.

What is an MRI scan?

MRI stands for Magnetic Resonance Imaging. This technique uses magnetism and radio frequency waves to collect information about the part of the body being examined, only on the legs of your child. The radio waves are bounced back to the scanner by your body and a computer within the scanner uses this information to produce images. Examples of such images are shown below.



The MRI scanner looks like a tunnel with open ends, and you will lie on a table that slowly slides into the tunnel with the feet first before the scan begins.



To obtain proper images, it is important that your child lie very still. As it is much easier to lie still when someone is comfortable, extra time will be taken to increase your child's comfort as much as possible. Your child will lie on his/her back on the scanner bed with the legs slightly elevated on a pillow, and the head will be out so it won't feel claustrophobic. Your child will be wearing headphones to protect their hearing from the noise the scanner makes. The same headphones are used for communication with the researcher and the music of your child's choice can be played over them to increase comfort. Some people fall asleep during an MRI scan, which is not a problem.

You are welcome to be in the scanner room with your child. Once in the scanner room, you will be provided with earplugs for the noise.

Please note that a hoist will be available to help your child lie on the bed of the MRI scanner if needed.

How long will my child be in the study?

Your child will be asked to attend two visits over a period of one year.

What are the potential risks or discomforts?

The MRI is a safe procedure, which gives researchers detailed information about the area being examined. It does not use X-rays and so it does not involve any risk from radiation exposure. The scanner is quite noisy, and some people feel claustrophobic during the examination and others find it difficult to lie still. If your child finds the scan too uncomfortable it can quickly be stopped.

An MRI does not have any impact on the development of a foetus; however we prefer not to include pregnant women in the study to avoid any potential complications. Muscle MRI can also be performed in women that are breastfeeding without provoking any damage.

During the collection of blood samples, your child may experience pain and/or bruising at the place on his/her arm where blood is taken. If your child would like, an anaesthetic cream can be applied to make the area numb and reduce discomfort. Rarely, a clot may form and infections occur where the blood is taken, or you may faint. Study staff will be able to help if this happens.

What are the possible benefits of taking part?

There will be no immediate clinical benefit to your child as a result of his/her participation in this study, but we hope that the information obtained from this

study will help us to know if glycogen can be identified and quantified on your skeletal muscles using carbon spectroscopy. This will help in the diagnosis and monitor of patients with Pompe disease in several ways. For example, this imaging technique could be useful for 1) diagnosing patients with Pompe disease, 2) monitoring disease progression, 3) understanding if increases in glycogen in the muscle worsens muscle function and could be therefore used as an indicator start treatment and; 4) to monitor response to enzymatic replacement therapy and other potential drugs in the future aiming to reduce the amount of glycogen in the muscles.

Is there anything I need to do before the MRI?

When consenting to your child MRI, please tell your researcher if your child has:

- had any recent surgery
- any surgical clips
- a previous history of metal fragments in the eyes
- any history of asthma
- any type of dental braces

What happens if something abnormal is discovered?

When having a scan, there is always a small possibility that an abnormality could be observed on the images of which you and your doctors are unaware. The MRI scans we collect will be reviewed by radiologists in the Newcastle upon Tyne Hospitals NHS Foundation Trust to look for any such findings.

It is important to recognise that the MRI scans are not being taken for diagnostic purposes and so there is no guarantee that the scans would be of the right kind to detect any abnormality which may be present.

Should the radiologist suspect anything abnormal on your child's scans they will inform the study Principal Investigator who will contact your child's clinical care team or GP in order to make recommendations about any further investigations which might be appropriate for them to arrange.

Who is organising and funding this study?

This study is funded by a grant received from Sanofi- Genzyme and they do not have any role in the design of the study. They will receive a report of the study with anonymized aggregated data showing the results. The Newcastle Upon Tyne NHS Hospitals Foundation Trust are the study Sponsor. The study will be

conducted in conjunction with Newcastle University and The Newcastle Upon Tyne NHS Hospitals Foundation Trust.

What if relevant new information becomes available?

Sometimes during a study new information becomes available. If this happens your study doctor will tell you about it and discuss with you whether you want your child to continue. If you decide to withdraw your child, your study doctor will ensure that your child's care will continue. If you decide to continue, you may be asked to sign a new consent form.

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

Your child can leave the study at any time without giving a reason and this will not affect the care that he/she receives now or in the future. If you decide that you would like to withdraw your child completely from the study, we would like to retain any data collected up to the point of withdrawal, for our research.

How will my child's information be kept confidential?

All the information that we will collect about your child during the course of the study will be kept strictly confidential. The information you give us will be stored in a secure database. Your child will not be able to be identified in any ensuing reports or publications.

The database linking unique sample study numbers to personal details will only be accessed by authorised members of the research team. Information we have stored about you will not be used or made available for any purpose other than for research and improvements in health care.

Your child's name, family name or any other personal identifiers will not be in any report or publication, including information about the study or the data gathered. Any research data generated and made available to others for further research will have your child's personal identity removed.

We will need to use information from your child's medical records for this research project.

This information will include your child's name/ NHS number/ date of birth/ gender / ethnicity and if applicable any of the following: diagnosis and management of Pompe /functional assessments / age at assessment / medications / any relevant clinical, genetic or biochemical history and health

information. People will use this information to do the research or to check your child's records to make sure that the research is being done properly.

People who do not need to know who your child will not be able to see his/her name or contact details, data will have a code number instead.

We will keep all information about your child safe and secure.

Once we have finished the study, we will keep some of the data so we can check the results, but you can request for your data to be removed from the database. We will write our reports in a way that no one can work out that your child took part in the study.

What are our choices about how my child information is going to be used?

You can stop your child being part of the study at any time, without giving a reason, but we will keep information about him/her that we already have.

We need to manage your child's records in specific ways for the research to be reliable. This means that we will not be able to let you see or change the data we hold about your child.

If you agree to take part in this study, your child will have the option to take part in future research using your child's data saved from this study.

You can find out more about how we use your information:

- at www.hra.nhs.uk/information-about-patients/
- our leaflet available from www.hra.nhs.uk/patientdataandresearch
- by asking one of the research team

What will happen to the results of this study?

The results from the research study may be used to write articles to be submitted for publication in scientific or medical journals. It is also likely that the results of this study will be presented at meetings and conferences. The results will also be sent to the organisation that funded the research, in a form of a report. However, your identity will not be revealed in any reports or publications. The study results will not be directly provided to study participants.

How have patients and the public been involved in this study?

This protocol has been reviewed by Allan Muir, Chair of the Pompe Support Association in the UK and by the Association for Glycogen Storage Disease in the

UK. They have suggested some changes to the protocol that have been amended.

Who has reviewed this study?

All research studies are reviewed by an independent Research Ethics Committee to protect your safety, rights, well-being and dignity. This study has been reviewed and approved by Yorkshire & The Humber – Leeds West Research Ethics Committee. The reference for this study is: 21/YH/0297.

Will my child get paid to take part in the study?

You will not receive payment for your child taking part in this study. Travelling expenses will be reimbursed for you and your child to attend study visits.

Informing General Practitioner (GP) / other healthcare practitioner

With your permission, we will let your child's GP, and other healthcare professionals involved in your child's care, know that she/he is taking part in the study.

What will happen to the samples my child will give?

The samples collected will be stored at the Newcastle MRC Centre Biobank for Rare and Neuromuscular Diseases until they will be used for research. The blood samples collected are planned to be used for future studies aiming to identify biomarkers of disease progression correlating with results of muscle function test or MRI. You can opt out at any time, and you can request for your child sample to be destroyed.

What happens if my child gets hurt taking part in this study?

There are no special compensation arrangements in the event that something goes wrong, and your child is harmed during the research study. Newcastle University has insurance coverage for the design of the study. NHS bodies have insurance for clinical negligence for people under their care. If your child is harmed and this is due to someone's negligence, you may have grounds for legal action for compensation against Newcastle University or the NHS (their employer). The normal NHS complaints mechanisms will still be available to you. Please contact a member of study staff at the site if any injuries are sustained during this study that are related to the research.

What if something goes wrong?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions

Principal Investigator: Professor Jordi Diaz-Manera

Email: Jordi.Diaz-Manera@newcastle.ac.uk

Telephone: 0191 241 8602

John Walton Muscular Dystrophy Research Centre, Translational and Clinical Research Institute, Newcastle University, International Centre for Life, Newcastle upon Tyne, NE1 3BZ, United Kingdom

If you prefer to raise your concerns with someone not involved in your care, you can contact the Patient Advise and Liaison Service (PALS). This service is confidential and can be contacted on Freephone: 0800 032 0202

Email: northoftynepals@nhct.nhs.uk

Alternatively, if you wish to make a formal complaint you can contact the Patient Relations Department through any of the details below:

Telephone: 0191 223 1382 or 0191 223 1454

Email: patient.relations@nuth.nhs.uk

Address: Patient Relations Department, The Newcastle upon Tyne Hospitals NHS Foundation Trust, The Freeman Hospital, Newcastle upon Tyne, NE7 7DN

If you wish to raise a complaint on how we have handled your personal data, you can contact our Data Protection Officer (see contact details below) who will investigate the matter. If you are not satisfied with our response or believe we are processing your personal data in a way that is not lawful, you can complain to the Information Commissioner's Office (ICO). Further details of how to do this can be found on the ICO website:

https://ico.org.uk/for-organisations/data-protection-reform/overview-of-the-gdpr/individuals-rights/

What if I have any more questions?

If you have any questions, please contact Prof Jordi Diaz-Manera

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