Title: Cardiac Magnetic Resonance Imaging Strategy for the Management of Patients With Acute Chest Pain and Detectable to Elevated Troponin
NCT: NCT01931852
Date: 4/23/2018

Wake Forest™
School of Medicine

Department of Emergency Medicine

CARDIAC MRI IMAGING STRATEGY FOR THE MANAGEMENT OF PATIENTS WITH ACUTE CHEST PAIN AND DETECTABLE TO ELEVATED TROPONIN (CMR-IMPACT)

Informed Consent Form to Participate in Research
Chadwick Miller, MD, MS, Principal Investigator

INTRODUCTION

You are invited to be in a research study. Research studies are designed to gain scientific knowledge that may help other people in the future. You are being asked to take part in this study because you have chest pain, or other symptoms that make your doctor concerned that you may have heart disease. Your participation is voluntary. Please take your time in making your decision as to whether or not you wish to participate. Ask your study doctor or the study staff to explain any words or information contained in this informed consent document that you do not understand. You may also discuss the study with your friends and family.

WHY IS THIS STUDY BEING DONE?

The purpose of this research study is to improve the way doctors and hospitals care for patients with chest pain.

HOW MANY PEOPLE WILL TAKE PART IN THE STUDY?

Approximately 312 people will take part in this study, with approximately 258 from this site. Approximately 4 research sites will be enrolling participants in this study.

WHAT IS INVOLVED IN THE STUDY?

Because of your symptoms, your doctor has concern about a blockage in one of the blood vessels in your heart. Your doctor is concerned enough that they consider you to be intermediate or high risk for this condition. These blockages are the most common cause of heart attacks. To find these blockages, patients are usually admitted to the hospital to undergo heart monitoring, blood tests, and heart imaging with a heart catheterization or stress testing. These tests are described in more detail below. These are done as part of usual care for patients with chest pain.

As part of this study, you will be randomized into one of the study groups described below. Randomization means that you are put into a group by chance. It is like flipping a coin. You will have an equal chance of being placed in either group.

Control Group:
The first study group is the "control" group. Participants in this group will likely be admitted to the hospital and undergo usual tests for patients with chest pain. The tests ordered in this group are based on the decisions made by you and your doctor. It is likely that many patients in the control group will undergo a heart catheterization. Heart catheterization is a test that takes pictures of the arteries of the heart by injecting dye through a catheter. Examples of other tests that could be ordered include stress echocardiography ("ultrasound"), cardiac (heart) MRI, nuclear medicine imaging.

MRI group:
The participants in this group will undergo standard of care blood tests as well as a MRI study of the heart (Cardiac MRI). Cardiac MRI uses a magnetic field to take pictures of your heart, while you are at rest, or while you are receiving medications to increase the blood flow to the heart. Cardiac MRI studies and blood tests are used commonly to evaluate patients with chest pain at this hospital and are considered usual care. Some patients in this group may be placed in a special unit within the hospital, the Observation Unit.

Because cardiac MRI is considered usual care at this hospital, it is possible that patients in either study group could have a cardiac MRI ordered by their doctor.

In both groups, the final decisions for care are up to you and your health care team. Study team members will also collect information about your hospital stay and your current health state.

Telephone Follow-Up
We will call you after you are discharged from the hospital to check on your health, ask questions about your health state, and to see if you have required additional health care. We will contact you at least 3 times after you leave the hospital at 30 days, 1 year, and at the end of the study. Some participants may be called also at 2 years and 3 years. If we are unable to reach you by telephone at these times, we may contact you by email, text, mail, or make a visit to your home to collect information about your health state. We might also call your doctor to check on your health. While you are in the study, your medical records will also be reviewed to determine if you have had any health events after you leave the hospital. You will be asked to sign a medical records release along with this consent form that will allow us to receive copies of your records from other healthcare providers or your insurance provider.

Storage of Biological Tissue

As part of the study, you will have about 2 teaspoons of blood withdrawn from a vein 3 different times during your visit. The total amount of blood withdrawn during the study will be about 6 teaspoons. This blood will be frozen and stored for future research. You will not be charged for this blood draw.

These samples will be kept and may be used in future research to learn more about other diseases. The

sample will be stored in the Emergency Department and the Clinical Research Unit at Wake Forest School of Medicine and it will be given only to researchers approved by Dr. Chadwick Miller. An Institutional Review Board (IRB) must also approve any future research study using your tissue sample. In order to participate in this study, you must be willing to provide this sample for future research.

Your blood sample will be stored with a unique identifier and will not include any identifiable information about you such as your name, address, telephone number, social security number, medical record number or any of the identifiers outlined in the HIPAA Privacy Rule. The unique identifier will be a randomly assigned number and only the principal investigator will have access to the code that links the unique identifier to you. Your name, address, social security number, etc., will never be disclosed to future researchers and neither will the code that links your identifiers to the sample.

The research that may be performed with your blood sample is not designed to help you specifically. There is no personal benefit to you from taking part in this aspect of the research study. It might help people who have diseases at some point in the future, but it is not known if this will happen. The results of the research performed with your blood will not be given to you or your doctor. The results will not be put in your medical record. The research using your blood sample will not affect your care.

Your blood sample will be used only for research and will not be sold. The findings from this research may result in the future development of products that are of commercial value. There are no plans to share any of the profits with you which may occur as a result of the research.

HOW LONG WILL I BE IN THE STUDY?

After the hospital visit, we will follow-up with you for at least one year and up to 3 years.

You can stop participating at any time. If you decide to stop participating in the study we encourage you to talk to the investigators or study staff first to learn about any potential health or safety consequences. If you choose to stop participating during this hospital visit, it will be up to your health care team to determine what further tests need to be done. If you do not wish to have any further tests done, your health care provider will talk with you about the risk of this decision.

WHAT ARE THE RISKS OF THE STUDY?

Being in this study involves some risk to you. You should discuss the risk of being in this study with the study staff. Risks and side effects related to this study include:

It is common for you to feel anxious or nervous about participating in a study. We expect this feeling to be short and reversible.

Taking part in this research study may involve providing information that you consider confidential or private. Efforts, such as coding research records, keeping research records secure and allowing only authorized people to have access to research records, will be made to keep your information safe. There is the risk that this information, despite our efforts, could be seen

by others who are not part of our study which could lead to loss of your privacy. We expect this to be rare.

Participants in both groups could experience a heart event such as a heart attack or death from a heart condition after being discharged from the hospital. We expect the chance of this happening to be similar to patients not participating in this study. We estimate that approximately 5% of people will have one of these heart events 1 year after leaving the hospital. It is possible that patients in one group could have a higher risk of death or heart events than patients in the other group. The difference in risks between the two groups is unknown.

Risk of heart testing
Participants in both groups will most likely undergo some type of heart testing. In the control group, most patients will undergo a heart catheterization to determine if you have blockages in the arteries of your heart. Other tests that could be ordered include stress echocardiography ("ultrasound"), cardiac catheterization, nuclear imaging, and cardiac MRI. Your doctor will talk with you about the risks and benefits of these tests and determine which test is right for you.

Participants in the MRI group will likely undergo a cardiac MRI. If your health care team wants to perform other tests before, after, or instead of the cardiac MRI, they will talk to you about the risks of those tests.

It is common for people to experience a feeling of nervousness, anxiety, or claustrophobia with a MRI scan. Usually this is brief and reversible. Your health care provider may administer medication to help with this feeling. If medication is necessary, your health care provider will talk with you about the risks and benefits of taking this medication.

The known risks associated with a MRI are minimal. The greatest risk is a metallic object flying through the air toward the magnet and hitting you. To reduce this risk we require that all people entering the MRI scanner remove all metal from their clothing and all metal objects from their pockets. No metal objects are allowed to be brought into the scanner at any time. In addition, once you are in the scanner, the door to the room will be closed so that no one inadvertently walks into the magnet. Rarely subjects can have unrecognized metal within their body (example – metal in the eye). This could cause a serious life threatening effect in the MRI scanner.

Rarely some subjects can have a serious heart event such as an arrhythmia (abnormal heart beat), low blood pressure, heart attack, or death while having a stress test performed. This risk could be higher in the MRI group compared to other patients undergoing stress testing because patients in this study are higher risk than many patients who routinely undergo stress testing. However, because of precautions we are taking, this is estimated to be a rare event. For example, MRI group participants will have pictures taken of their heart at rest to decide if it is safe to have stress testing performed. If a serious heart event occurs, the stress test may have to be stopped and our emergency response team activated. The study team is closely watching for these events.

A contrast agent, or intravenous dye is used to look at your heart. Also, other medications are used during the stress test such as adenosine, and regadenason. These medications are used to increase the blood flow to your heart. It is rare but possible that you could have an allergic reaction or adverse effect from these medications. Occasionally these reactions to medications can be life threatening.

Some contrast agents have been linked to a very rare condition called Nephrogenic Systemic Fibrosis/Nephrogenic Fibrosing Dermopathy (NSF/NFD). It is felt that this condition happens in patients with severe decreases in kidney function and/or people with liver diseases who receive a contrast agent. This condition is not reversible and can be debilitating or fatal. This study does not include people with severe decreases in kidney function or other known risk factors therefore we feel this occurrence will be very rare.

The contrast dye used during a cardiac MRI contains a metal called gadolinium. Recent medical literature has reported that patients may accumulate gadolinium in parts of the brain after receiving the contrast dye. The information that is currently available has not found any adverse health effects or diseases resulting from a build-up of gadolinium.

If a cardiac MRI is ordered for subjects in either group, some experimental images may be obtained in addition to the routine images. This means that some of the imaging sequences are not FDA approved but are considered non-significant risk investigational devices. The sequences contained in this software package do not exceed the FDA safety performance parameter guidelines for MRI exams. Therefore, we anticipate the risk associated with this experimental sequence to be very small. There is no cost to you for collecting these additional images.

It is possible that differences in hospital bills could occur between the study groups. We suspect that the cardiac MRI group will have lower charges compared to the control group based on our previous studies. However, individual participants could experience either an increase or decrease in hospital bills related to participation. It is also possible that taking part in this study may mean added costs to you or your insurance company. We expect the risk of this to be low. The tests that you receive as part of your participation in this study are considered part of routine care for patients with chest pain and are normally covered by insurance providers.

There also may be other side effects that we cannot predict. You should tell the research staff about all the medications, vitamins and supplements you take and any medical conditions you have. This may help avoid side effects, interactions and other risks.

A data safety monitoring board within Wake Forest University Health Sciences will be reviewing the data from this research throughout the study.

Pregnant women are excluded from participation in this study. Because some methods of birth control are not 100% reliable, a pregnancy test is required at least 10 days from your last normal menstrual period, if you are a sexually active woman of childbearing potential.

ARE THERE BENEFITS TO TAKING PART IN THE STUDY?

You may or may not receive direct benefit from participating in this study. Investigators are trying to determine if cardiac MRI may be more efficient than standard therapy you could receive without being in the study. Because individuals respond differently to therapy, no one can know in advance if it will be helpful in your particular case.

WHAT OTHER CHOICES ARE THERE?

This is not a treatment study. Your alternative is to not participate in this study.

WHAT ABOUT MY HEALTH INFORMATION?

In this research study, any new information we collect from you and information we get from your medical records or other facilities about your health or behaviors is considered Protected Health Information. The information we will collect for this research study includes**:** your health history, your family health history, how you respond to study activities or procedures, laboratory and other test results, medical images, information from study visits, phone calls, surveys, and physical examinations.

If this research study involves the diagnosis or treatment of a medical condition, then Protected Health Information collected from you during this study will be placed in your medical record, and may be used to help treat you, arrange payment for your care, or assist with Medical Center operations.

We will make every effort to keep your Protected Health Information private. We will store records of your Protected Health Information in a cabinet in a locked office or on a password protected computer. Only the following people or organizations will be granted access to your Protected Health Information:

1) The study investigator and his staff, or others at Wake Forest University Health Sciences who oversee research

2) Other people or laboratories providing services for this research project on behalf of Wake Forest University Health Sciences and Wake Forest University Baptist Medical Center

3) The sponsor of the study, the National Heart, Lung, and Blood Institute (NHLBI), and its representatives.

4) The study coordinating center, Wake Forest School of Medicine, and its representatives.

5) The Food and Drug Administration (FDA).

6) Certain agencies, either Federal or State, or health authorities in other countries.

7) The Institutional Review Board or its legally authorized representatives.

Any Protected Health Information collected from you in this study that is maintained in the research records will be kept for at least six years after the study is finished. At that time any research information not already in your medical record will either be destroyed or it will be de-identified. Any research information entered into your medical record will be kept for as long as your medical record is kept by the Medical Center. You will not be able to obtain a copy of your Protected Health Information in the research records until all activities in the study are completely finished.

You can tell Dr. Chadwick Miller that you want to take away your permission to use and share your Protected Health Information at any time by sending a letter to this address:

However, if you take away permission to use your Protected Health Information you will not be able to be in the study any longer. We will stop collecting any more information about you, but any information we have already collected can still be used for the purposes of the research study.

By signing this form you give us permission to use your Protected Health Information for this study.

If you choose to participate in this study, your medical record at Wake Forest University Baptist Medical Center will indicate that you are enrolled in a clinical trial. Information about the research and any medications or devices you are being given as a participant may also be included in your medical record. This part of the medical record will only be available to people who have authorized access to your medical record. If you are not a patient at this Medical Center, a medical record will be created for you anyway to ensure that this important information is available to doctors in case of an emergency.

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This website will not include information that can identify you. At most, the website will include a summary of the results. You can search this Web site at any time.

Laboratory test results and other medical reports created as a result of your participation in the research study may be entered into the computer systems of Wake Forest University Health Sciences and North Carolina Baptist Hospital. These will be kept secure, with access to this

information limited to individuals with proper authority, but who may not be directly involved with this research study.

This research is covered by a Certificate of Confidentiality from the National Institutes of Health. The researchers with this Certificate may not disclose or use information, documents, or biospecimens that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other action, suit, or proceeding, or be used as evidence, for example, if there is a court subpoena, unless you have consented for this use. Information, documents, or biospecimens protected by this Certificate cannot be disclosed to anyone else who is not connected with the research except, if there is a federal, state, or local law that requires disclosure (such as to report child abuse or communicable diseases but not for federal, state, or local civil, criminal, administrative, legislative, or other proceedings, see below); if you have consented to the disclosure, including for your medical treatment; or if it is used for other scientific research, as allowed by federal regulations protecting research subjects.

The Certificate cannot be used to refuse a request for information from personnel of the United States federal or state government agency sponsoring the project that is needed for auditing or program evaluation by the National Heart, Lung and Blood Institute which is funding this project or for information that must be disclosed in order to meet the requirements of the federal Food and Drug Administration (FDA). You should understand that a Certificate of Confidentiality does not prevent you from voluntarily releasing information about yourself or your involvement in this research. If you want your research information released to an insurer, medical care provider, or any other person not connected with the research, you must provide consent to allow the researchers to release it.

The Certificate of Confidentiality will not be used to prevent disclosure as required by federal, state, or local law of harm to self or others. The Certificate of Confidentiality will not be used to prevent disclosure for any purpose you have consented to in this informed consent document, including research data that is put in your medical record.

WHAT ARE THE COSTS?

The tests being done to evaluate your chest pain are commonly used as part of regular medical care for patients with your symptoms. Whether or not you participate in this research study, the costs for your regular medical care will be your own responsibility. You will not be charged for the experimental images that may be collected during the MRI.

WILL YOU BE PAID FOR PARTICIPATING?

You will receive a $20 gift card after you complete each telephone interview. The study involves 3 to 4 of these interviews over a period of 1 to 3 years. You could receive $60 - $80 if you complete all telephone interviews.

WHO IS SPONSORING THIS STUDY?

This study is being sponsored by the National Heart, Lung, and Blood Institute (NHLBI), part of

the National Institutes of Health (NIH). The sponsor is providing money or other support to Wake Forest University Health Sciences to help conduct this study. The researchers do not, however, hold a direct financial interest in the sponsor or the product being studied.

WHAT HAPPENS IF YOU EXPERIENCE AN INJURY OR ILLNESS AS A RESULT OF PARTICIPATING IN THIS STUDY?

Should you experience a physical injury or illness as a direct result of your participation in this study, Wake Forest University School of Medicine maintains limited research insurance coverage for the usual and customary medical fees for reasonable and necessary treatment of such injuries or illnesses. To the extent research insurance coverage is available under this policy the reasonable costs of these necessary medical services will be paid, up to a maximum of $25,000. Wake Forest University Baptist Medical Center holds the insurance policy for this coverage. It provides a maximum of $25,000 coverage for each claim and is limited to a total of $250,000 for all claims in any one year. The Wake Forest University School of Medicine, and the North Carolina Baptist Hospitals, Incorporated do not assume responsibility to pay for these medical services or to provide any other compensation for such injury or illness. Additional information may be obtained from the Medical Center's Director of Risk and Insurance Management, at [redacted].

If you are injured, the insurer may require information such as your name, social security number, and date of birth in order to pay for your care. This is because the insurer is required by law to report any payments made to cover the care of any persons who are members of a government insurance plan to the Department of Health and Human Services.

You do not give up any legal rights as a research participant by signing this consent form. For more information on medical treatment for research related injuries or to report a study related illness, adverse event, or injury you should call Dr. Chadwick Miller at [redacted] (days) or [redacted] (Emergency department, after hours).

WHAT ARE MY RIGHTS AS A RESEARCH STUDY PARTICIPANT?

Taking part in this study is voluntary. You may choose not to take part or you may leave the study at any time. Refusing to participate or leaving the study will not result in any penalty or loss of benefits to which you are entitled. If you decide to stop participating in the study we encourage you to talk to the investigators or study staff first to learn about any potential health or safety consequences. The investigators also have the right to stop your participation in the study at any time. This could be because it is in your best medical interest, your condition worsened, new information becomes available, you had an unexpected reaction, you failed to follow instructions, or because the entire study has been stopped. You will be given any new information we become aware of that would affect your willingness to continue to participate in the study.

WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

For questions about the study or in the event of a research-related injury, contact the study investigator, Dr. Chadwick Miller at [redacted] (days) or [redacted] (Emergency Department, after hours).

The Institutional Review Board (IRB) is a group of people who review the research to protect your rights. If you have a question about your rights as a research participant, or you would like to discuss problems or concerns, have questions or want to offer input, or you want to obtain additional information, you should contact the Chairman of the IRB at [redacted]

You will be given a copy of this signed consent form.

SIGNATURES

I agree to take part in this study. I authorize the use and disclosure of my health information as described in this consent and authorization form. If I have not already received a copy of the Privacy Notice, I may request one or one will be made available to me. I have had a chance to ask questions about being in this study and have those questions answered. By signing this consent and authorization form, I am not releasing or agreeing to release the investigator, the sponsor, the institution or its agents from liability for negligence.

Subject Name (Printed):_____

Subject Signature: _____ Date: _____Time:_____ am pm

Person Obtaining Consent:_____ Date:_____ Time:_____ am pm