INSTITUTE: National Institute of Allergy and Infectious Diseases

STUDY NUMBER: 15-I-0007 PRINCIPAL INVESTIGATOR: Elizabeth Kang, MD

STUDY TITLE: Haploidentical Transplant for Patients with Chronic Granulomatous Disease (CGD) using Post Transplant Cyclophosphamide

Continuing Review Approved by the IRB on 06/18/18
Amendment Approved by the IRB on 06/18/18 (E) Date Posted to Web: 07/21/18
Haplo Recipient Adult Consent

INTRODUCTION

We are asking you to take part in a research study at the National Institutes of Health (NIH).

First, we want you to know that:

Taking part in NIH research is entirely voluntary.

You may choose not to take part, or you may withdraw from the study at any time. In either case, you will not lose any benefits to which you are otherwise entitled. However, to receive care at the NIH, you must be taking part in a study or be under evaluation for study participation.

You may receive no benefit from taking part. The research may give us knowledge that may help people in the future.

Second, some people have personal, religious or ethical beliefs that may limit the kinds of medical or research treatments they would want to receive (such as blood transfusions). If you have such beliefs, please discuss them with your NIH doctors or research team before you agree to the study.

Now we will describe this research study. Before you decide to take part, please take as much time as you need to ask any questions and discuss this study with anyone at NIH, or with family, friends or your personal physician or other health professional.

If you are signing this consent for a minor child, "you" refers to "your child" throughout the consent document.

Why is this study being done?

You have a severe congenital immunodeficiency in which bone marrow transplantation (BMT) may be curative. However, treatment has been traditionally limited to those who are younger than the age of 16 years and have fully HLA matched sibling, as it is known that younger patients tolerate transplantation better than older patients and closely matched donors have given the best results to date. However, safer procedures for performing this type of transplantation (called 'allogeneic transplantation') have changed and improved over the last decade, and suggest that age as well as having a perfectly HLA matched donor may not restrict the ability to provide this treatment to you.

This study is designed to use related donors that only match partially (known as a haploidentical transplant), but use a drug after the cells have been given to prevent some of the possible complications related to transplant, and which occur more frequently when using a haploidentical transplant.

Why are you being asked to take part in this study?

You are being asked to participate in this study as you have an underlying disease which may be cured by transplant and also have an ongoing infection that has not been cured by standard medical treatment. We feel that transplantation is the best possible way to manage this infection and also cure the underlying disease.

How many patients will be on this study?
We will enroll 10 patients who have an immunodeficiency known as chronic granulomatous disease.

What is bone marrow transplantation?

"Stem cells" are immature blood cells, like seeds; they grow in the bone marrow and produce all of the cells needed for normal blood and immunity. When these stem cells are taken from one person (called the "donor"), and given to another person (called the "recipient"), it is known as a transplant. Stem cells are collected for transplantation by taking samples of blood or bone marrow from the donor. Blood and bone marrow transplant has been used successfully to cure many kinds of immune diseases, cancer, or pre-cancerous conditions that develop in blood or immune system cells. Transplant provides not only new blood cells, but also an entirely new immune system. However, there are certain complications that can come up from transplantation, including: graft failure-where the donor cells do not take over and leave the patient without a functioning immune or blood system, and graft versus host disease-where the donor cells attack the normal tissues of the recipient, and which can be fatal (described in further detail below).

Most transplants use an HLA-matched relative as the donor. HLA refers to a set of genes that are responsible for many of the immune system reactions. The more genes are the same between the donor and the recipient, the better the outcome. In the past, in order to get the cells from the donor to take over, the transplanted patient was treated with high doses of chemotherapy and or radiation. After this 'conditioning', the donor **cells (graft)** find their way to the bone marrow where they generate normally functioning blood cells for the rest of your life. In addition, immune cells from the donor generate a new immune system to help fight infection. However, as only 30% of patients in the general population have an HLA matched relative, matched related donor transplantation is often not an option, resulting in the need to find and use matched unrelated donors (MUD transplantation).

Matched Unrelated Donor Bone Marrow Transplantation (MUD-BMT) is performed the same way as when using a sibling; however the cells used are collected from healthy volunteers either through a program called the National Marrow Donor Program (NMDP) or from various cord blood banks. The NMDP has been around since 1986 and works with volunteers who donate stem cells for patients who need a transplant but who do not have a matched relative donor. Despite the use of these donor registries, many patients do not have a fully matched donor. A donor has not been found for you at this time thus we are considering using a partially matched related donor.

In the past, the risks of complications from transplant (graft failure and graft versus host disease in particular) were higher when using a partially matched donor. However a number of methods have been developed to improve the outcomes when using these types of donors. Most of these studies have involved patients with malignancies, and have been quite successful. Investigators are now starting to apply these methods to patients who do not have malignant

disorders but would still benefit from transplant. Potential donor matches will come from first-degree relatives including siblings, and parents.

What will happen if you take part in this research study?

Participation on this study will take place as follows:

- We will confirm the best donor from any of your closely related family members (Biological mother or father or fully related brothers or sisters)

Pre-Transplant Evaluation

Before we can do the transplant, we need to do a complete review of your health, which may include the following:

- Blood tests.
- Urine tests, including a 24- hour urine collection.
- A special breathing test, a test for heart health, several X-ray studies, and/or an MRI.
- You may also have a bone marrow aspiration and biopsy. We do this by numbing your hipbone with a medication called lidocaine. Then a small cut will be made in your skin, where we will place a needle into the hipbone and take out liquid samples (about 2 tablespoons worth) through the needle. A small piece of the bone marrow may also be removed with the needle.
- You will also undergo a dental evaluation and meet with a social worker.

If everything is ok, then we will give you several doses of pre-transplant chemotherapy and radiation therapy. This combination is given to prepare you for the transplant. You should know that being in this study may keep you from being in other research studies.

Description of a Transplant from Your Half Matched (Haploidentical) Related Donor

1) You will be admitted to the hospital approximately 2 weeks prior to the transplant. At this time you will undergo the tests to review your health as described above.
2) You will have a large intravenous access line called a Hickman catheter that can stay in your body for the entire duration of transplantation and recovery periods. This hollow tube is used to inject blood transfusions, antibiotics, intravenous feeding, other intravenous medications, and will also be used to give you the stem cells from your donor. This line can also be used for blood drawing, avoiding almost all needle sticks during the transplant and recovery period. The line is put in under local or rarely general anesthesia in the radiology department or, even more rarely, the operating room. It enters the body in the upper part of the chest and is then tunneled under the skin to go into a vein in the chest or neck. You may feel some discomfort and stiffness in your chest and shoulder for a few days after the line has been placed.
3) Approximately 13 days before the transplant, you will receive a test dose of the drug Busulfan. Busulfan is given through your vein (IV) over 2 hours. The purpose of this test dose is to see how much total busulfan to give you during the transplant.
4) Starting 6 days before your transplant we will need to give you different kinds of medicines (chemotherapy) that are designed to create space in your bone marrow so the donor cells can go there and some medicines

(immunosuppressant's) that help lower your immune system and helps your body accept the donated cells. Some of the medicines we will give you are: fludarabine, cyclophosphamide and busulfan.

5) The day before your transplant you will receive a single dose of low dose total body irradiation. This procedure will permit you to accept your donor's stem cells because it lowers your immune system.
6) Once all the pre-transplant treatments are done we will then give you the donor cells.
7) The 3rd and 4th day after receiving the cells, we will give you another dose of the chemotherapy drug cyclophosphamide to help prevent graft versus host disease.
8) On the 5th day after the cells are infused, you will start a drug called sirolimus which is used to help prevent the donor cells from attacking other parts of your body (Graft versus host disease). .

During the Transplant

While you are in the hospital for your transplant, you will be monitored very closely for possible complications, which are described below. You will receive standard supportive care such as antibiotics, and transfusions. Blood will be drawn frequently during your treatment. Most of the blood that is drawn will be used to monitor your health during and after the chemotherapy and transplant procedure. In addition, some blood samples will be drawn for research purposes. The average time you will need to stay in the hospital is about 6 weeks, but it could be longer if there are complications.

If you develop graft versus host disease in which your donor cells attack your body, you may be placed on additional medications. The study doctor will discuss these medications with you, if they become needed.

After the Transplant

Once your donor cells have taken over and are producing normal immune cells, and you are strong enough, you will be discharged from the hospital and followed closely as an outpatient. You will be required to remain in the Washington, D.C. area for approximately three months after transplantation to monitor for complications. You may require re-admission to the hospital if you have problems after transplant. You will be followed closely at the NIH Clinical Center for the first six months after transplant, and then you will be followed less frequently for at least five years.

Frequent Follow-up at the NIH in the First Year After Transplant

If you are in good health after the three-month post-transplant period, you will then be allowed to return home to the care of your primary physician. You will be required to return to the NIH from one to every three months, until approximately six months after your transplant so we can check for any late transplant complications including graft versus host disease and infection. Thereafter you will be seen here every three to six months until you are two years after transplant. During some visits you will be scheduled for bone marrow aspirates and biopsies, blood draws, and other appropriate tests to monitor disease status. You will also have blood drawn for research on how your immune system recovers after the transplant.

Alternative Treatment

There are options you may consider other than participating on this trial, including:

- Continuing to receive medications for your current infections as they arise.
- Wait for the possibility of finding a matched donor in the registry
- Receive Gene therapy if available

- Instead of participating in a research study such as this, you may also be eligible to receive a transplant with high dose chemotherapy and/or radiation to completely wipe out your bone marrow before donor cells are transplanted at another centre.
- Another option is not to receive any further treatment at all.

You should discuss with your referring doctor and your doctors at the NIH whether or not any of these other treatments might be a reasonable choice for your disease.

Stored Samples and Future Research

If you agree to participate in this study, you also agree to let us store your samples for future research. These stored samples will only be used for research to help us learn more about CGD and Primary Immune Deficiency Diseases or transplant. We will label your stored samples with a code that only the study team can link to you. We will keep any information that can be traced back to you as private as possible. If you change your mind and decide you do not want us to store your samples, please contact us. We will do our best to comply with your request, but cannot guarantee that we will always be able to destroy all your samples.

We might send your samples to other investigators for their research regarding CGD or transplant, without any information that can identify you. We might also share information such as your sex, age, health history, or ethnicity. We will not sell your samples and you will not be paid for any products that result from the research. Some future studies may need health information (such as smoking history or present health status) that we don't already have. If so, our study team will contact you. Future research that uses your samples will probably not help you, but it may help us learn more about how to treat or prevent CGD or other Primary Immune Deficiencies. . In general, the research tests we perform are not like routine medical tests, and may not relate directly to your medical care.

Risks or Discomforts of Participation

Risk of Death from Transplant: Patients undergoing transplantation are at risk of dying from the transplant procedure and its possible complications. In some studies of blood and bone marrow transplant, as many as half of the patients have died as a direct result of the transplant or its complications. There is about a 40 percent chance of death from complications of conventional allogeneic bone marrow transplants. Although we will use new/unconventional ways to try to reduce these odds, it is possible that our approach may not work or that it may even increase the chances of death. In transplant studies similar to this one, up to 20 percent of patients have died from the transplant procedure. The risk of death or other complications can vary greatly, depending on the age of the patient, the way the transplant is performed, and other factors. There is also the risk of complications that cannot be predicted.

Graft-Versus-Host-Disease (GvHD)

Although we believe that this protocol using a "nonmyeloablative" conditioning regimen decreases the risk of serious graft-versus-host disease, it may still occur. GvHD is the attack of T-lymphocytes from your donor against your own cells.

GvHD can include any of the following problems:
a rash with itching or even peeling of the skin,
abdominal pains, diarrhea, loss of weight, loss of appetite,
disturbances in liver function with yellowing of the skin.

Occasionally, any of these features can be so severe as to be fatal. For example, you may develop severe diarrhea, causing you to pass large volumes (pints to quarts) of stool and even blood; you may be unable to eat for many days and require receiving both your fluids and nutrition through the vein. On the other hand, mild GvHD causing a skin rash only, may not even require treatment.
You will be monitored regularly for GvHD, and if necessary, we will treat you with intravenous steroids, starting at a high dose and decreasing quite rapidly to low-dose steroids. We may also use other medications to treat the GvHD. These medications are standard drugs used in the treatment of GvHD and will be described to you if they are necessary for you to take.

Chronic Graft-versus-Host-Disease

A delayed form of graft-versus-host-disease called chronic GvHD may occur. This can take the form of:
a hardening of the skin and soft tissues, dryness of the mouth because of failed production of saliva,
gritty eyes because of reduced tear production,
digestive problems leading to weight loss,
liver damage leading to jaundice,
kidney damage leading to fluid retention,
lung damage leading to progressive shortness of breath and chronic cough.

Patients with chronic graft-versus-host-disease are also more at risk for infection. We will monitor you closely for any chronic graft-versus-host-disease and treat you with steroids and possibly other medications Any medications that are being used will be described to you including their possible side effects. The majority of cases of chronic graft-versus-host disease respond to treatment. However, the process can be progressive and unresponsive to all attempts at treatment leading to severe incapacity and death. The risk of severe chronic GvHD in marrow transplant survivors is in the order of 5% to 20%. It is very difficult to predict what the risk of developing GvHD (either the acute or chronic type) will be as this is a new kind of regimen which is designed to limit as much as possible its occurrence, but the risk still exists.

Cytomegalovirus Pneumonia

Cytomegalovirus or CMV is one of the major infections patients are at risk for after transplantation. It is a very common virus that most adults have had without symptoms, and normally the virus lies inactive in the body, causing no problems. During a period of where the immune system is suppressed, such as after a transplant, the virus can become active and cause a fatal pneumonia. Part of the monitoring that we carry out after your transplant will be to detect, by very sensitive techniques, the activity of CMV in your body. If reactivation occurs, we will treat you with antiviral medications. If these medicines are started early enough, they can prevent the pneumonia from happening. We will monitor your blood weekly for the first 3 months and then monthly until 6 months after your transplant.

Graft Rejection

Part of this study will be to analyze how effective a moderate to low intensity preparative regimen will be in providing donor stem cell engraftment. In order to engraft with your donor's stem cells, it is important that you be sufficiently immunosuppressed before undergoing transplantation. This is the reason you will receive strong immunosuppressive treatment before you receive your donor's cells.

As the preparative regimen is not myeloablative (meaning your own bone marrow is not totally destroyed by the treatment regimen), even if you fail to engraft, your blood counts should return to normal in two to three weeks,

although there is a risk that they may not. If your own bone marrow does not recover, we would need to try to 'rescue' your marrow with additional cells. In some cases, we will have collected your own cells and can use these if available, otherwise we will need to try to get more cells from the donor. Complete rejection of the graft without any recovery is a fatal condition.

A test will be performed on some of your blood and bone marrow after the transplant to confirm donor engraftment. Some patients may have engraftment of donor cells but still have some of their own residual bone marrow cells detected following the transplant. This is called mixed chimerism. If it appears that the engraftment by donor cells is decreasing, you may need to be treated with other medications to help preserve the graft. Unfortunately, a patient may fail to engraft with donor cells and it is not possible to predict beforehand which patient will or will not engraft. Also, with the emphasis being on safety in this regimen, it is possible that more patients will not engraft as the goal of this type of transplant is to limit the toxicity as much as possible. Patients that fail to engraft with donor marrow may be offered a second transplant using standard transplant regimen or may be referred back to their primary physician for further care after they have recovered fully from the transplant.

Graft Failure

Rarely, even if the graft comes in and you recover, the graft can fail at a later time point. We will regularly monitor for graft failure after the transplant by blood tests (and possibly bone marrow aspirates) in the 1st, 2nd, and 3rd month, and at 6 months and12 months. If your graft appears stable by one year, it is extremely unlikely it will fail after that and therefore we will need to monitor you much less frequently after that.

Veno-Occlusive Disease (VOD)

In some patients, for no obvious reason, busulfan followed by allogeneic transplantation results in damage to the liver causing blockage of its blood vessels and, in severe cases, liver failure and death. This complication occurs in less than 5% of patients undergoing standard BMT and occurs less frequently with nonmyeloablative transplants. Unfortunately, it is hard to predict. Treatment is largely supportive, and up to half of the patients developing severe veno-occlusive disease will die. You will be given a medication called ursodiol to try to further prevent the development of VOD.

Other Complications

Because marrow transplantation affects the entire body, a comprehensive list of all the side effects that have ever been encountered after marrow transplantation cannot be made.

Infections from very rare organisms can occur and are completely unpredictable.

Brain damage can occur as well as heart, kidney, liver, and lung failure from causes other than those mentioned. Conventional allogeneic transplantation carries about a 40% chance of death from complications of the transplant. Although we have good reason to believe that nonmyeloablative transplants confer a much-reduced death rate, the procedure nevertheless carries some risk, and using a partically matched donor increases the risks overall. You should discuss your actual estimated risk with the transplantation physician. It depends on your age, and the amount of damage you may have from the infections you have had and the types of treatments you have undergone in the past. You should also remember that unfortunately there are no other treatments currently available for your disease that produce lasting results, and that you will continue to experience problems and even have a shorter life expectancy due to your illness. No one person has ever developed all the listed serious side effects from transplantation, and many patients have very few of them.

Bone Marrow Aspiration and Biopsy: This procedure usually causes only mild pain for a short time at the biopsy site. Very rarely, bleeding or an infection may occur at the biopsy site.

Blood Draws: Blood may be drawn from your arm. Drawing blood from your arms means we will stick a needle into a vein in the arm. This will be slightly uncomfortable but not dangerous. It can leave a bruise but if that happens, it will go away. Rarely an infection can happen. Sometimes some patients have to be stuck more than once at a single blood drawing session. There are medications that can be placed on the skin to keep the discomfort as little as possible. Ask your nurse or doctor about them. Occasionally, patients may experience lightheadedness or fainting during or immediately after blood drawing. This is usually due to anxiety and will go away after a short period of time. We will always inform you how much blood is going to be drawn from you at a specific drawing, and whether blood is being drawn at that session for a medically indicated purpose, or for laboratory research.
Central Venous Catheter: Side effects of placing a central venous line in your chest wall include bleeding, bruising, blood clot, or pain in the area of insertion. The placement of a central venous catheter can, but it is rare, result in a collapsed lung. If a collapsed lung occurs, this may require hospitalization and temporary insertion of a plastic tube in your chest to re-expand the lung. Experienced physicians will place the central line and will discuss the risks in more detail at the time of the line insertion

Risks of Chemotherapy: Treatment with fludarabine, busulfan and cyclophosphamide is likely to reduce your white blood cells for many days and place you at increased risk of infection. Such infections can be very serious and may result in death. For this reason, if you develop a fever higher than 101°F, you must see your doctor immediately. If necessary, you will be treated with antibiotics. Also, these drugs and also the radiation you will get are likely to cause your platelet count to fall. This may place you at increased risk of bleeding. If your platelet count becomes dangerously low, you will receive platelet transfusions. These chemotherapies may also cause you to develop a low red blood cell count, called anemia. Anemia can cause a lack of energy and other symptoms. Transfusions of red blood cells are sometimes needed to treat anemia. The following are known specific risks of each drug used within the specific regimen.

Fludarabine:

Likely:	Less likely:	Rare:
• Low blood counts • Lowered Level of immune cells and increased risk of infection	• Nausea and vomiting • Diarrhea • Fever • Mouth sores • Loss of appetite • Swelling (edema) • Skin rash • Muscle aches • Headache • Agitation • Hearing loss • Fatigue • Weakness • Numbness / tingling ("pins and needles")	• GI bleeding • Lung damage • Kidney damage • Severe neurologic (brain and/or spinal cord) toxicity has occurred after very high doses including blindness, deterioration of mental status, and death.

Busulfan:

Likely:	Less Likely:	Rare:
• Low blood counts • Hair loss	• Nausea and vomiting • Sterility	• Secondary leukemia (a different type of cancer) • Skin rash

Cyclophosphamide:

Likely:	Less Likely:	Rare:
• Low blood counts • Hair loss	• Nausea and vomiting • Painful and bloody urination • Sterility • Water retention	• Heart damage • Secondary leukemia (a different type of cancer) • Skin rash • Retention of too much water in the body • Pulmonary fibrosis

Radiation:
You will receive total body irradiation (TBI). Radiation therapy can reduce your immune system and increase your chance of developing infections. The radiation dose can also cause fatigue, nausea, vomiting, and/or diarrhea. TBI is also known to increase the chances of getting cancer over the course of many years. Because we are using a low dose of total body irradiation we think that the risk of getting cancer will be lower than that seen with high-dose radiation therapy but it is not known what the exact risk will be.

You will receive sirolimus to prevent graft versus host disease:

Sirolimus:

Likely:	Less likely:	Rare:
• High blood pressure • Low or high potassium •	• Anemia • An allergic reaction • Sensitivity reaction to light	• Seizure • Renal dysfunction

Stem Cell Infusion: The donor cells are frozen with a chemical called DMSO to protect them from the effects of freezing. Patients receiving thawed cells often develop side effects from the DMSO. DMSO side effects may include fever and allergic reactions, such as skin rash, itching, difficulty breathing, and low blood pressure. These reactions are usually mild and temporary, and they can be easily treated with IV fluids and medications.

Risks Associated with Stored Samples

The greatest risk associated with storing samples is that someone may take information from your medical records without your permission. The chances of this happening are very low. If this information becomes available, you may face discrimination when you apply for insurance or a job. You may also have similar problems if you share the information yourself or let us release your medical records.

Potential Benefits of Participation

The transplant may improve the chance that your infection and the immunodeficiency will be cured. However, you should understand that this cannot be guaranteed. In addition, your participation in this experimental study may contribute to understanding and developing new ways of using transplant for the treatment of immunodeficiencies. Knowledge gained from this study may help others in the future who have this disease.

Research Subject's Rights

What are the costs of taking part in this study?

If you choose to take part in the study, the following will apply, in keeping with the NIH policy:

- You will receive study treatment at no charge to you. This may include surgery, transplant, medicines, laboratory testing, x-rays or scans done at the Clinical Center, National Institutes of Health (NIH), or arranged for you by the research team to be done outside the Clinical Center, NIH if the study related treatment is not available at the NIH.
- Medicines that are not part of the study treatment will not be provided or paid for by the Clinical Center, NIH.
- Once you have completed taking part in the study, medical care will no longer be provided by the Clinical Center, NIH.

Will your medical information be kept private?

We will do our best to make sure that the personal information in your medical record will be kept private. However, we cannot guarantee total privacy. Organizations that may look at and/or copy your medical records for research, quality assurance, and data analysis include:

- The National Institute of Allergy and Infectious Diseases (NIAID) and other government agencies, like the Food and Drug Administration (FDA), which are involved in keeping research safe for people.
- National Institute of Allergy and Infectious Diseases Institutional Review Board

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

Stopping Therapy

Your doctor may decide to stop your therapy for the following reasons:
- If he/she believes that it is in your best interest
- If your disease comes back during treatment
- If you have side effects from the treatment that your doctor thinks are too severe
- If new information shows that another treatment would be better for you

In this case, you will be informed of the reason therapy is being stopped.

You can stop taking part in the study at any time. However, if you decide to stop taking part in the study, we would like you to talk to the study doctor and your regular doctor first.

If you decide at any time to withdraw your consent to participate in the trial, we will not collect any additional medical information about you. If you withdraw your consent and leave the trial, any samples of yours that have been obtained for the study and stored at the NIH can be destroyed upon request. However, any samples and data generated from the samples that have already been distributed to other researchers or placed in the research databases can**not** be recalled and destroyed.

Certificate of Confidentiality

This study has received a Certificate of Confidentiality that helps to protect your research information. The researchers involved in this study cannot be forced to disclose the identity or any information collected in this study in any legal proceedings at the federal, state, or local level, regardless of whether they are criminal, administrative, or legislative proceedings. However, you or the researcher may choose to voluntarily disclose the protected information under certain circumstances. For example, if you request the release of information in writing, the Certificate does not protect against that voluntary disclosure. Furthermore, federal agencies may review your records under limited circumstances, such as a DHHS request for information for an audit or program evaluation or an FDA request under the Food, Drug and Cosmetics Act. The Certificate of Confidentiality will not protect against the required reporting by hospital staff of information on suspected child abuse, reportable communicable diseases, and/or possible threat of harm to self or others.

Conflict of Interest

The National Institutes of Health reviews NIH staff researchers at least yearly for conflicts of interest. The following link contains details on this process-http://ethics.od.nih.gov/forms/Protocol-Review-Guide.pdf. You may ask your research team for additional information or a copy of the Protocol Review Guide.

OTHER PERTINENT INFORMATION

1. Confidentiality. When results of an NIH research study are reported in medical journals or at scientific meetings, the people who take part are not named and identified. In most cases, the NIH will not release any information about your research involvement without your written permission. However, if you sign a release of information form, for example, for an insurance company, the NIH will give the insurance company information from your medical record. This information might affect (either favorably or unfavorably) the willingness of the insurance company to sell you insurance.

The Federal Privacy Act protects the confidentiality of your NIH medical records. However, you should know that the Act allows release of some information from your medical record without your permission, for example, if it is required by the Food and Drug Administration (FDA), members of Congress, law enforcement officials, or other authorized hospital accreditation organizations.

2. Policy Regarding Research-Related Injuries. The Clinical Center will provide short-term medical care for any injury resulting from your participation in research here. In general, the National Institutes of Health, the Clinical Center, or the Federal Government will provide no long-term medical care or financial compensation for research-related injuries. However, you have the right to pursue legal remedy if you believe that your injury justifies such action.

3. Payments. The amount of payment to research volunteers is guided by the National Institutes of Health policies. In general, patients are not paid for taking part in research studies at the National Institutes of Health. Reimbursement of travel and subsistence will be offered consistent with NIH guidelines.

4. Problems or Questions. If you have any problems or questions about this study, or about your rights as a research participant, or about any research-related injury, contact the Principal Investigator, Elizabeth Kang, M.D., Building 10/Clinical Research Center, Room 5-3760; Telephone: 301-402-7567. Other researchers you may call are: Corin Kelly, RN, BSN 301-451-7906. You may also call the Clinical Center Patient Representative at 301-496-2626.

5. Consent Document. Please keep a copy of this document in case you want to read it again.

COMPLETE APPROPRIATE ITEM(S) BELOW:

A. Adult Patient's Consent

I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby consent to take part in this study.

Signature of Adult Patient/Legal Representative _____ Date _____

Print Name _____

B. Parent's Permission for Minor Patient.

I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby give permission for my child to take part in this study.
(Attach NIH 2514-2, Minor's Assent, if applicable.)

Signature of Parent(s)/Guardian _____ Date _____

Print Name _____

C. Child's Verbal Assent (If Applicable)

The information in the above consent was described to my child and my child agrees to participate in the study.

Signature of Parent(s)/Guardian _____ Date _____ Print Name _____

THIS CONSENT DOCUMENT HAS BEEN APPROVED FOR USE FROM JUNE 18, 2018 THROUGH JUNE 17, 2019.

Signature of Investigator _____ Date _____

Print Name _____

Signature of Witness _____ Date _____

Print Name _____