Informed Consent Form

Perioperative Testosterone Replacement Therapy Improves Outcomes: A Pilot Safety and Feasibility Study

NCT Number: NCT04731376

Document IRB Approval Date: 7/16/25

You Are Being Asked to Be in a Research Study

Concise presentation of key concepts

You are being asked to be in a research study. A research study is designed to answer a scientific question. If you agree to be in the study you will be one of 124 people who are being studied, at Emory.

Why is this study being done?

This study is being done to answer the question: will patients with low testosterone levels who undergo testosterone replacement prior to major urologic surgery have improved quality of life and operative outcomes, such as decreased length of hospital stay, complications, and mortality? You are being asked to be in this research study because it is our belief that testosterone replacement will improve post-operative outcomes and quality of life.

Do you have to be in the study?

It is your decision to be part of this research study. You do not have to be in it. Your choice will not affect your access to medical care for your condition. Before you make your decision, you should take time to learn about the study.

What do I have to do if I choose to participate in this study?

If you are eligible and want to be part of the study, you will participate from now until 3 months post-operatively. The researchers will ask you to do the following: learn to self-inject testosterone or learn to apply topical testosterone gel prior to and after surgery. You will require an extra follow-up visit prior to the procedure that would otherwise not be necessary if you chose to participate. All of these extra procedures will be paid for by the study.

How is this study going to help you?

If you are in the study, you will be helping the researchers answer the study question. Participants are expected to experience a direct benefit. Testosterone replacement therapy has been shown to be beneficial for hypogonadal (or low testosterone) patients. Men with low testosterone report a variety of symptoms including loss of sex drive, depression, increased tiredness, erectile dysfunction, decreased cognitive ability (thoughts feel foggy), loss of muscle mass and strength, and osteoporosis (weakening of bones). Studies have demonstrated that patients undergoing testosterone replacement therapy have increased lean body mass, decreased fat mass and have improved physical function. Testosterone replacement therapy can also stimulate bone formation and may decrease the risk of fracture.

What are the risks or discomforts I should know about before making a decision? The study will take time. The drug/device/procedure that is being tested may not work any better than regular care and may even cause harm. When applied topically, there is a risk of transference to testosterone to others. For this reason, areas of the skin for which the testosterone was applied to should be covered after use. All studies have some risks. Some risks are relatively small, like being bored or losing time. Some are more serious – for this study, these include development of dermatologic, gastrointestinal, genitourinary, and blood clotting side effects as well as potential loss of privacy and breach of confidentiality. A full list of expected risks, their frequency and severity are in the "What are the possible risks and discomforts?" section of this document.

Alternatives to Joining This Study

Since this is not a treatment study, the alternative is not to participate.

Costs

You WILL NOT have to pay for any of the study procedures, in particular those that are not covered by your medical insurance.

What Should I Do Next?

Read this form, or have it read to you. Make sure the study doctor or study staff explains the study to you. Ask questions (e.g., about exact time commitment, about unfamiliar words, more details on specific procedures, etc.) Make sure you understand which parts of the study are research and which are standard care that you would have even if you did not join the study. Take time to consider this and talk about it with your family and friends.

Emory University
Consent to be a Research Subject / HIPAA Authorization

Title: Perioperative Testosterone Replacement Therapy Improves Outcomes: A Pilot Safety and Feasibility Study

Investigator-Sponsor: Dr. Kenneth Ogan, Dr. Viraj Master, Dr. Akanksha Mehta

Introduction

You are being asked to be in a medical research study. This form is designed to tell you everything you need to think about before you decide if you want to be a part of the study. **It is entirely your choice. If you decide to take part, you can change your mind later on and withdraw from the research study.** The decision to join or not join the research study will not cause you to lose any medical benefits. If you decide not to take part in this study, your doctor will continue to treat you.

Before making your decision:

- Please carefully read this form or have it read to you
- Please listen to the study doctor or study staff explain the study to you
- Please ask questions about anything that is not clear

You can take a copy of this consent form, to keep. Feel free to take your time thinking about whether you would like to participate. You may wish to discuss your decision with family or friends. Do not sign this consent form unless you have had a chance to ask questions and get answers that make sense to you. By signing this form you will not give up any legal rights.

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.

What is the purpose of this study?

The purpose of this study is to examine the safety testosterone replacement therapy in male patients undergoing major operations. It is our hypothesis that hypogonadal patients (men with low testosterone) who undergo testosterone replacement will have improved quality of life and perioperative outcomes, such as decreased length of hospital stay, complications, and mortality. If proven correct, it is our supposition that testosterone level testing and replacement should be incorporated into the perioperative treatment decision making process in patients.

What will I be asked to do?

For patients receiving testosterone therapy:

You will be asked to self-administer testosterone replacement therapy weekly from the time of your pre-operative visit until your 3-month post-operative follow up appointment. This will take place either in the form of self-injections or via a topical gel. During your first visit to the clinic, the researchers will screen you for eligibility in the study. You will be approached by our research team, who will perform the informed consent (formal process to enroll you in our study) with you. At this visit, if consent is obtained, your first set of laboratory values, including testosterone level, will be drawn. Upon a low reading, you will receive two surveys which measures quality of life and frailty. These will help us

measure the outcome of our study. During this visit, the researchers will ask the desired route of testosterone administration, either in the form of self-injections or topical gel. A second laboratory draw is necessary for treatment of low testosterone. You might be asked to come to the clinic and laboratory a second time, as soon you are able, to have a second testosterone level drawn. On the day of surgery, we will check your testosterone levels again. The surgery test can also serve as a second testosterone level test in place of a second standalone test. Upon a second low reading, you will be prescribed the appropriate testosterone medication and will begin testosterone replacement as instructed. After the surgery, you will continue the testosterone replacement therapy until your 3-month follow up appointment. At the post-operative clinic visit, the research team will check in on you. At this time, the team will ask you to complete the same surveys as before. The team will record postoperative outcomes (any complications or issues during the study/procedure recovery) recorded at this visit. Laboratory values drawn will be standard of care for patients undergoing testosterone replacement as well as major surgery. Elevated PSA at the time of screening, without a complete evaluation in the last year, will require further workup at the discretion of the treating surgeon and will disqualify you from the study.

Study Calendar

Tests and Observations	Screening and Consenting Visit	Second Lab for Low T confirmation	Day of Surgery (Low T Confirmation)	90 Day Follow-Up Visit (+/- 60 days)
Frailty Tests and Quality of Life Survey	**x**		**x**	**x**
Testosterone (Total and Free)	**x**	**X****	**X****	**x**
CBC, CRP, ESR, LDH, Protein (total), Albumin, Serum Cr, eGFR as measured by MDRD formula, LH, DHEA, SHBG, PSA	**x**		**X***	**x**
Digital Rectal Exam	**x**			
Post-Operative Outcome Measures				**x**

*PSA not needed at this laboratory draw

**Either the “Low T Confirmation” or “Day of Surgery” can serve as the low T confirmation test to determine if the patient will be prescribed testosterone

IF you are a patient with normal testosterone, your care will be no different than it would be if the patient was not apart of this study other than the administration of our surveys

How will my medicine be provided?
The medicine that you will take will be dispensed by the pharmacy and delivered to the principal investigator or study team member. The principal investigator or health care providers on his/her research team will provide the medicine to you. If you have questions about the medicine, you should ask the study doctor. You may also call the pharmacy at [redacted] if you have questions about the medicine.

Who owns my study information and samples?
If you join this study, you will be donating your study information. You will not receive any compensation if your information is used to make a new product. If you withdraw from the study, data that were already collected may be still be used for this study.

What are the possible risks and discomforts?

For patients undergoing testosterone replacement therapy, there may be side effects from the study drug or procedures that are not known at this time.

The most common risks and discomforts expected in this study are:
Skin-related or dermatologic (pain, redness, swelling, acne, or itchiness at site of the testosterone injection or topical application), gastrointestinal/metabolic (diarrhea, increased appetite, weight gain), cardiovascular (hot flashes), genital or urinary (needing to urinate more frequently, inability to start stream when urinating, and patients with benign prostatic hypertrophy (BPH) may experience worsening symptoms), blood-related or hematologic (increased hematocrit – a measure of how concentration of red blood cells in your blood), lung-related or pulmonary (cough while injecting testosterone) and mood side effects (mood swings, increased aggression or irritability) have been reported among <10% of patients.

The less common risks and discomforts expected in this study are:
Skin-related or dermatologic (rash, swelling), gastrointestinal/metabolic (nausea, abdominal pain), cardiovascular (high blood pressure), genital or urinary (urinary retention), blood related or hematologic (polycythemia or high red blood cell count), lung-related or pulmonary side effects (runny nose, cough) and mood, brain-related or neurologic side effects (dizziness, tremor, depression) have been reported in about 1% of patients.

Rare but possible risks include:
Lung-related pulmonary (painful breathing) symptoms, blood clot formation (or thrombosis) anaphylaxis (allergic reaction) and elevated liver enzymes indicating liver damage have been reported among less than 1% of patients receiving testosterone replacement. We do not expect these events to occur.

We do not anticipate any risks above and beyond standard surgical risks for the normal T group.

It is possible that the researchers will learn something new during the study about the risks of being in it. If this happens, they will tell you about it. Then you can decide if you want to continue to be in this study or not. You may be asked to sign a new consent form that includes the new information if you decide to stay in the study.

Will I benefit directly from the study?
Patients in the normal testosterone group will not directly benefit from this study.

For patients with low testosterone, your hypogonadal symptoms, including loss of libido, depression, lethargy, erectile dysfunction, decreased cognitive ability, and loss of muscle mass and strength, and osteoporosis (weakening of bones), may improve while you are in this study but they may not, and they may even get worse. However, we do not expect any of these symptoms to get worse. Testosterone replacement therapy has been shown to be beneficial for hypogonadal patients. Studies have demonstrated that patients undergoing testosterone replacement therapy have increased lean body mass and decreased fat mass, and experience feelings of increased sexual and physical function. Testosterone replacement therapy can also stimulate bone formation and may decrease the risk of fracture. This study is designed to learn more about whether testosterone replacement prior to major surgery in hypogonadal men is safe, effective, and makes improvements in outcomes such as quality of life, complication rate, and hospital stay length. The study results may be used to help others in the future.

Will I be compensated for my time and effort?

You will not be offered compensation for being in this study.

What are my other options?

If you decide not to enter this study, there is care available to you outside of this research study. The study doctor will discuss these with you. You do not have to be in this study to undergo your procedure.

Taking part in this study, however, may make you unable to participate in some other research studies, if they exclude people who have taken certain treatments. You should discuss this with the researchers if you have concerns. You may wish to research other study options at websites like clinicaltrials.gov and ResearchMatch.org.

How will you protect my private information that you collect in this study?

Whenever possible, a study number, rather than your name, will be used on study records. Your name and other identifying information will not appear when we present or publish the study results.

Study records can be opened by court order. They also may be provided in response to a subpoena or a request for the production of documents.

Storing and Sharing your Information

De-identified data from this study (data that has been stripped of all information that can identify you), may be placed into public databases where, in addition to having no direct identifiers, researchers will need to sign data use agreements before accessing the data. We will remove or code any personal information that could identify you before your information is shared. This will ensure that, by current scientific standards and known methods, it is extremely unlikely that anyone would be able to identify you from the information we share. Despite these measures, we cannot guarantee anonymity of your personal data.

Your data from this study may be useful for other research being done by investigators at Emory or elsewhere. To help further science, we may provide your deidentified data and/or specimens to other researchers. If we do, we will not include any information that could identify you. If your data or specimens are labeled with your study ID, we will not allow the other investigators to link that ID to your identifiable information.

We will use your sample and data only for research. We will not sell them. However, the results of this research might someday lead to the development of products (such as a commercial cell line, a medical or genetic test, a drug, or other commercial product) that could be sold by a company. You will not receive money from the sale of any such product. In general, we will not give you any individual results from the study of the samples you give us. If we find something of urgent medical importance to you, we will inform you, although we expect that this will be a very rare occurrence.

Medical Record

If you have been an Emory Healthcare patient before, then you already have an Emory Healthcare medical record. If you have never been an Emory Healthcare patient, you do not have one. An Emory Healthcare medical record will be made for you if an Emory provider or facility gives you any services or procedures for this study.

Copies of the consent form/HIPAA authorization that you sign will be put in any Emory Healthcare medical record you have now or any time during the study.

Emory Healthcare may create study information about you that can help with your care. For example, the results of study tests or procedures. These study results will be put in your Emory Healthcare medical record. Anyone who has access to your medical records will be able to have access to all the study information placed there. The confidentiality of the study information in your medical record will be protected by laws like the HIPAA privacy rule. State and federal laws may not protect the research information from disclosure.

The results of some study tests and procedures will be used only for research purposes and will *not* be placed in your medical record. For this study, those items include: PROMIS Global Health Survey scores and Freid Frailty scores

Tests and procedures done at non-Emory places may not become part of your Emory medical record. Also, if you decide to be in this study, it is up to you to let your other health providers know.

In Case of Injury

The sponsor may choose not to pay for Subject Injury Costs for any subject, no matter if the subject is insured, or how he/she is insured.

If you believe you have become ill or injured from this research, you should contact Dr. Ogan at telephone number [redacted] You should also let any health care provider who treats you know that you are in a research study.

If you get ill or injured from being in the study, Emory will help you to get medical treatment. Neither Emory nor the sponsor will pay for your medical treatment. Your insurer will be billed for your treatment costs. If you do not have insurance, or if your insurance does not pay, then you will have to pay these costs.

Emory and the sponsor have not, however, set aside any money to pay you if you are injured as a result of being in this study or to pay for this medical treatment. For Emory, the only exception is if it is proven that your injury or illness is directly caused by the negligence of an Emory employee. “Negligence” is the failure to follow a standard duty of care. You do not give up any legal rights you may have by being in this study, including any right to bring a claim for negligence.

Costs

There are no costs, research or standard of care related, associated with the study.

Withdrawal from the Study

You have the right to leave a study at any time without penalty.

For your safety, however, you should consider the study doctor’s advice about how to go off the study treatment. If you leave the study before the final planned study visit, the researchers may ask you to have some of the final steps done, specifically:

- Post-operative follow-up if patients underwent surgery while on testosterone replacement treatment

The researchers also have the right to stop your participation in this study without your consent for any reason, especially if they believe it is in your best interest or if you were to object to any future changes that may be made in the study plan.

These are the expected reasons why the researchers may stop your participation: Patient has a hematocrit Laboratory Value > 55%

- Patient experiences a thromboembolic event during the course of the study

Authorization to Use and Disclose Protected Health Information

The privacy of your health information is important to us. We call your health information that identifies you, your "protected health information" or "PHI." To protect your PHI, we will follow federal and state privacy laws, including the Health Insurance Portability and Accountability Act and regulations (HIPAA). We refer to all of these laws as the "Privacy Rules." Here we let you know how we will use and disclose your PHI for the study.

PHI that Will be Used/Disclosed:
The PHI that we will use or share for the main research study includes:

- Medical information about you including your medical history and present/past medications.
- Results of exams, procedures and tests you have before and during the study. Laboratory test results.

Purposes for Which Your PHI Will be Used/Disclosed:
We will use and share your PHI for the conduct and oversight of the research study. We will use and share your PHI to provide you with study related treatment and for payment for such treatment. We will also use and share your PHI to conduct normal business operations. We may share your PHI with other people and places that help us conduct or carry out the study, such as laboratories, data management centers, data monitors, contract research organizations, Institutional Review Boards (IRBs) and other study sites. If you leave the study, we may use your PHI to determine your health, vital status or contact information. We will use and disclose your PHI for the administration and payment of any costs relating to subject injury from the study.

Use and Disclosure of Your Information That is Required by Law:
We will use and disclose your PHI when we are required to do so by law. This includes laws that require us to report child abuse or abuse of elderly or disabled adults. We will also comply with legal requests or orders that require us to disclose your PHI. These include subpoenas or court orders.

Authorization to Use PHI is Required to Participate:
By signing this form, you give us permission to use and share your PHI as described in this document. You do not have to sign this form. If you do not sign this form, you may still receive non-research related treatment.

People Who will Use/Disclose Your PHI:
The following people and groups will use and disclose your PHI in connection with the research study:

- The Principal Investigator and the research staff will use and disclose your PHI to conduct the study and give you study related treatment.
- Emory may use and disclose your PHI to get payment for study related treatment and to run normal business operations.

- The Principal Investigator and research staff will share your PHI with other people and groups to help conduct the study or to provide oversight for the study.
- Dr. Ogan and Dr. Master are the supporters of the study. The supporters may use and disclose your PHI to make sure the research is done correctly and to collect and analyze the results of the research. The Sponsor may disclose your PHI to other people and groups like study monitors to help conduct the study or to provide oversight for the study.
- The research team and the supporters may use and disclose your PHI, including disclosure to insurance carriers to administer payment for subject injury.
- The following people and groups will use your PHI to make sure the research is done correctly and safely:

    - Emory offices that are part of the Human Research Participant Protection Program and those that are involved in study administration and billing. These include the Emory IRB, the Emory Research and Healthcare Compliance Offices, and the Emory Office for Clinical Research.
    - Government agencies that regulate the research including: Office for Human Research Protections; Food and Drug Administration; Veterans Administration.
    - Public health agencies.
    - Research monitors and reviewer.
    - Accreditation agencies.
- Sometimes a Principal Investigator or other researcher moves to a different institution. If this happens, your PHI may be shared with that new institution and their oversight offices. PHI will be shared securely and under a legal agreement to ensure it continues to be used under the terms of this consent and HIPAA authorization.

Expiration of Your Authorization
Your PHI will be used until this research study ends.

Revoking Your Authorization
If you sign this form, at any time later you may revoke (take back) your permission to use your information. If you want to do this, you must contact the study team at: [redacted]

At that point, the researchers would not collect any more of your PHI. But they may use or disclose the information you already gave them so they can follow the law, protect your safety, or make sure that the study was done properly and the data is correct. If you revoke your authorization you will not be able to stay in the study.

Other Items You Should Know about Your Privacy
Not all people and entities are covered by the Privacy Rules. HIPAA only applies to health care providers, health care payers, and health care clearinghouses. If we disclose your information to people who are not covered by the Privacy Rules, including HIPAA, then your information won't be protected by the Privacy Rules. People who do not have to follow the Privacy rules can use or disclose your information with others without your permission if they are allowed to do so by the laws that cover them.

To maintain the integrity of this research study, you generally will not have access to your PHI related to this research until the study is complete. When the study ends, and at your request, you generally will have access to your PHI that we maintain in a designated record set. A designated record set is data that includes medical information or billing

records that your health care providers use to make decisions about you. If it is necessary for your health care, your health information will be provided to your doctor.

We may remove identifying information from your PHI. Once we do this, the remaining information will not be subject to the Privacy Rules. Information without identifiers may be used or disclosed with other people or organizations for purposes besides this study.

Contact Information

Contact Dr. Ogan at [redacted]

- if you have any questions about this study or your part in it,
- if you feel you have had a research-related injury or a bad reaction to the study drug, or
- if you have questions, concerns or complaints about the research

Contact the Emory Institutional Review Board [redacted]

- if you have questions about your rights as a research participant.
- if you have questions, concerns or complaints about the research.
- You may also let the IRB know about your experience as a research participant through our Research Participant Survey at http://www.surveymonkey.com/s/6ZDMW75.

Consent and Authorization

TO BE FILLED OUT BY SUBJECT ONLY

Please **print** your name, **sign**, and **date** below if you agree to be in this research study. By signing this consent and authorization form, you will not give up any of your legal rights. We will give you a copy of the signed form to keep.

_____

Name of Subject

_____ _____

Signature of Subject (18 or older and able to consent) **Date** **Time**

TO BE FILLED OUT BY STUDY TEAM ONLY

_____

Name of Person Conducting Informed Consent Discussion

_____ _____

Signature of Person Conducting Informed Consent Discussion **Date** **Time**