Subject Consent Form

Macon & Joan Brock Virginia Health Sciences at Old Dominion University Institutional Review Board

STUDY TITLE

ONCE-DAILY VERSUS TWICE DAILY INSULIN GLARGINE IN THE MANAGEMENT OF PATIENTS WITH PREGESTATIONAL DIABETES REQUIRING INSULIN

Key Summary of Information

We are inviting you to take part in a research study about whether taking insulin glargine once a day or twice a day (split in half) is associated with better blood sugar control. This page is intended to provide you with key information to help you decide whether or not to participate. The detailed consent form follows this page. Please ask the research team questions. If you have questions later, the contact information for the principal investigator in charge of this study is below.

WHAT IS THE PURPOSE, WHAT ARE THE PROCEDURES, AND WHAT IS THE DURATION OF THIS STUDY?

The purpose of this study is to determine which insulin glargine dose is better for blood sugar control: splitting the total dose in half and taking it twice a day (half in the morning and half at bedtime) or taking the whole dose once a day.

The study will last for the remainder of your pregnancy following enrollment until 30 days postpartum (up to 17 weeks). You will be randomized into one of two groups: one group will take insulin glargine once a day, while the other group takes it twice. The twice-daily group will take the same overall amount of insulin glargine per day as the once-daily group, but split into two half doses. Both groups will use a continuous glucose monitor to track their blood sugar levels.

WHAT ARE SOME REASONS YOU MIGHT CHOOSE TO PARTICIPATE IN THIS STUDY?

You might choose to participate in the study for the possibility of two insulin glargine doses a day. You might also choose to participate in the study because you wish to contribute to the field of science and help the study team learn new information that may help future pregnancies.

WHAT ARE SOME REASONS YOU MIGHT CHOOSE NOT TO PARTICIPATE IN THIS STUDY?

You may choose not to participate in this study because of the inability to choose which insulin glargine dose schedule will apply to you, or because you do not want to take two doses of insulin glargine a day.

DO YOU HAVE TO TAKE PART IN THIS STUDY?

If you decide to take part in the study, it should be because you really want to volunteer for it. You will not lose any services, benefits or rights you would normally have if you choose not to volunteer. You are free to withdraw from the study at any time.

WHAT IF YOU HAVE QUESTIONS OR CONCERNS?

For questions about the study, contact the investigator, Marwan Ma'ayeh, MD, at 757-446-7900.
For questions about your rights as a research participant, contact a member of the Institutional Review Board through the Institutional Review Board office at (757) 446-8423.

Please continue to the next page for detailed information about the study.

Study Title

Once-Daily Versus Twice Daily Insulin Glargine in the Management of Patients with Pregestational Diabetes Requiring Insulin

Investigators

Marwan Ma'ayeh, MD; George Saade, MD
Macon and Joan Brock Virginia Health Sciences at Old Dominion University

Sponsor

The costs of this study are being paid by the Department of Obstetrics and Gynecology at Macon & Joan Brock Virginia Health Sciences at Old Dominion University.

WHY IS THIS STUDY BEING DONE?

The purpose of this study is to determine if taking insulin glargine once a day or twice a day is a better way of managing blood sugar in pregnant patients.

WHY ARE YOU BEING ASKED TO TAKE PART?

You are being asked to participate in this research project because you have Type II diabetes and are pregnant.

This is a research study. This study includes only people who choose to take part. Please take your time to make your decision and feel free to ask any questions you might have.

WHAT ARE SOME IMPORTANT DETAILS ABOUT THIS STUDY?

At this local site about 200 people will take part in this study. We will need you to be in the study until you deliver your baby.

Clinically relevant research results will not be disclosed to participants, including any that might apply individually.

WHEN SHOULD YOU NOT TAKE PART?

If you have any of the following conditions or are taking any of the medications listed below, you should not take part in this study:

- Allergy to glargine;
- Necessary use of another diabetes medication, like metformin;
- Known or suspected fetal anomaly or aneuploidy;
- Ongoing prenatal care outside of Macon and Joan Brock Virginia Health Sciences at Old Dominion University or planned delivery outside of Sentara Norfolk General Hospital

WHAT IS INVOLVED IN THE STUDY?

For this study, you will use insulin glargine and a continuous glucose monitor (CGM). Continuous glucose monitoring (CGM) provides real-time measurements of glucose variability and is a better measure of insulin sensitivity than one blood draw evaluation or finger sticks. If you do not already

have a CGM device, you will be prescribed one. There are many CGM devices available, and some insurance plans prefer a certain model over another. If your insurance does not cover a CGM, you will be responsible for the cost. You may keep the CGM after the study.

You will be "randomized" into one of the study groups described below. This means that you will be assigned into a group by chance. It is like flipping a coin. A computer program may do this - neither you nor the investigator will be able to choose what group you will be in. You will have an equal chance of being placed in any group.

The following are standard treatments that will be done because you will be in this study:

- Use a continuous glucose monitor
- Standard prenatal care and diabetes management

The following are experimental treatments that are being tested in this study:

- Taking insulin glargine based on your randomization group
    - Once-daily dosing
    - Twice-daily dosing (in a split dose) – take half in the morning and half at bedtime

If you already take insulin glargine, you will either take your dose once daily or twice daily, based on your group.

If you are not already on insulin, you will be started at a total of 0.5 units/kg per day. 50% will be with insulin glargine, either once-daily or twice-daily, based on your group. The other 50% will be with short-acting insulin, divided into three mealtime doses. This will be adjusted as your pregnancy progresses to avoid hypoglycemia.

If you are on another long-acting or immediate-acting insulin other than insulin glargine, you will be switched to insulin glargine to be taken either once daily or twice daily, based on your assignment.

You will continue to receive your standard prenatal care and diabetes management during your pregnancy, up to 12 weeks after delivery. Any changes to your insulin dosage while you are in the study are at the discretion of your provider, not the study.

WHAT ARE THE RISKS OF THE STUDY?

A risk associated with allowing your data to be saved is the release of personal information from your study record. We will strive to protect your records so that your personal information (like name, address, social security number and phone number) will remain private.

It is unknown if a twice-daily insulin schedule increases the risk of low or high blood sugar in pregnant individuals; however, studies in non-pregnant individuals have not shown increased risk of low or high blood sugar.

Continuous glucose monitoring is a safe and minimally invasive tool for tracking glucose in real time.

Risks and side effects related to CGM placement include:

- Skin irritation
- Discomfort during placement
- Bruising

There is also the potential risk of alarm fatigue, which is when frequent or false alarms from your CGM app cause you to become less attentive and responsive. A false alarm is when the app alerts you for high or low blood glucose levels, but your actual glucose level is not in the alarm range. If you have any concerns, please contact the study team.

While on the study, you are at risk for these side effects. You should discuss these with the investigator and/or your regular doctor or healthcare provider.

There also may be other side effects that are unknown and we cannot predict.

For more information about risks and side effects, ask the investigator or contact 757-446-7900.

Are There Benefits to Taking Part in the Study?

If you agree to take part in this study, there may or may not be direct benefit to you. There is no guarantee that you will personally benefit from taking part in this study. We hope the information learned from this study will benefit other people with Type II diabetes in the future.

What Other Options Do You Have?

You may receive insulin glargine even if you do not take part in the study, depending on the treatment plan from your regular doctor. Please talk to your regular doctor or health care provider about these and other options.

What about Confidentiality?

In conducting this research study, it may be necessary for the research team to send information about you and your health to persons in other organizations. This information may include what we call "protected health information (PHI)," which includes personal information about you. It will be shared with others only as described below:

Description of Your PHI to Be Disclosed	Organization and Person (or their title) Disclosing Your PHI	Organization and Person (or their title) Receiving Your PHI	Purpose of Disclosure
Maternal medical, obstetrical, and social history	Macon & Joan Brock Virginia Health Sciences at ODU EPIC electronic health record	Principal investigator and research team members	Conducting the research study
Maternal and fetal outcomes following delivery	Sentara EPIC electronic health record	Principal investigator and research team members	Conducting the research study

All protected health information will be maintained in strict confidence as required by law. However, your protected health information may be disclosed if required by law. Once your protected health information is disclosed for research, such as to the sponsor, federal privacy laws may no longer protect the information.

- If you refuse to give your approval for your personal information to be shared as described in this consent form, you will not be able to be in this study. However, your choice will not affect any medical benefits to which you are entitled.
- By signing this consent form to participate in the study, you are allowing the research team to share PHI, as described in this consent form.
- You have the right to cancel your approval for the sharing of PHI. If you cancel your approval, you will have to leave the study. All information collected about you before the date you cancelled will continue to be used. To cancel your approval, you must notify Marwan Ma'ayeh, MD in writing at 825 Fairfax Avenue, Suite 310, Norfolk, VA 23507.
- Your approval for the sharing of personal information about you for this study expires at the end of the study.
- You also have the right to review your research records, or someone you designate may review your research records on your behalf, once the study has ended unless prohibited by law.
- Any research information in your medical record will become a permanent part of that document.

Your study records may be reviewed and/or copied in order to meet state and/or federal regulations. Reviewers may include, for example, Macon & Joan Brock Virginia Health Sciences at Old Dominion University Institutional Review Board, U.S. Food and Drug Administration, and the Office for Human Research Protections (OHRP).

Information learned from this research may be used in reports, presentations and publications. None of these will personally identify you.

WHAT WILL PARTICIPATION IN THE STUDY COST OR PAY?

Taking part in this study may result in extra costs due to special tests or procedures that need to be performed. Your health care insurance policy may or may not cover these. If you do not already use a continuous glucose monitor (CGM), you will receive a prescription for it. The cost will depend based on your specific insurance plan and deductible. If it is not covered by your insurance, you have the option to buy one over the counter, with an estimated cost of $90 per month.

You will receive no payment for taking part in this study.

WHAT IF YOU GET INJURED?

In the case of injury or illness resulting from this study, emergency medical treatment is available and will be provided by Sentara Norfolk General Hospital and paid for by your insurance company. Further medical care and/or hospitalization resulting from this injury or illness will be charged to your insurance company.

Macon and Joan Brock Virginia Health Sciences at Old Dominion University and Sentara Norfolk General Hospital will not provide free medical care for any sickness or injury resulting from being in this study. Financial compensation for a research related injury or illness, lost wages, disability, or discomfort is not available. However, you do not waive any legal rights by signing this consent form.

WHAT ABOUT THE COLLECTION OF DATA?

You are in a study where data is collected as part of your participation in the research study. This data will not be used or distributed for future research studies by the investigator or other researchers. After all of the study testing is complete, the data will be destroyed.

WHAT ARE YOUR RIGHTS AS A PARTICIPANT?

Taking part in this study is your choice. If you decide not to take part, your choice will not affect any medical benefits to which you are entitled. You may choose to leave the study at any time. If you do leave the study, discuss it with the investigator who will help you do so in the safest way. If you leave, the study it will not result in any penalty or loss of benefits to you.

The investigator may decide to take you off this study if you cancel your approval.

We will tell you about new information that may affect your health, welfare, or willingness to stay in this study.

WHOM DO YOU CALL IF YOU HAVE QUESTIONS OR PROBLEMS?

For questions about the study, contact the investigator, Marwan Ma'ayeh, at 757-446-7900 or the research coordinator at 757-446-0529.

For questions about your rights as a research participant, contact a member of the Institutional Review Board through the Institutional Review Board office at (757) 446-8423.

If you believe you have suffered an injury as a result of your participation in this study, you should contact the principal investigator Marwan Ma'ayeh, at 757-446-7900. You may also contact Betsy Conner, director, Macon & Joan Brock Virginia Health Sciences at Old Dominion University Human Subjects Protection Program and IRB office, at (757) 446-5854.

SIGNATURE

You will get a copy of this signed form. You may also request information from the investigator. By signing your name on the line below, you agree to take part in this study and accept the risks.

_____	_____	_____	___/___ /___
Signature of Participant	Typed or Printed Name	Relationship to Subject	MM/ DD/ YY

STATEMENT OF THE INVESTIGATOR OR APPROVED DESIGNEE

I certify that I have explained to the above individual the nature and purpose of the study, potential benefits, and possible risks associated with participation in this study. I have answered any questions that have been raised and have witnessed the above signature. I have explained the above to the volunteer on the date stated on this consent form.

_____	_____ / _____ / _____
Signature of Investigator or Approved Designee	MM/ DD/ YY

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