IRB NUMBER: LU # 217918

LOYOLA UNIVERSITY CHICAGO
HEALTH SCIENCES DIVISION
MAYWOOD, ILLINOIS
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

INFORMED CONSENT

Participant's Name: _____

Medical Record Number: _____

PROJECT TITLE: Randomized controlled trial of Glargine versus neutral protamine Hagedorn insulin for the treatment of diabetes mellitus in pregnancy

THE APPROVAL FOR THIS PROJECT EXPIRES ON xx/xx/xxxx.

Participant Information

About this research study
Scientists do research to answer important questions which might help change or improve the way we do things in the future. You are being asked to participate in a research study.

Taking part in this research study is voluntary
You may choose to not take part in this study or may choose to leave the study at any time. Deciding not to participate, or deciding to leave the study later, will not result in any penalty or loss of benefits to which you are entitled and will not affect your relationship with your provider.

This consent form will give you information about the study to help you decide whether you want to participate. Please read this form, and ask any questions you have, before agreeing to be in the study.

Overview and Key Information

This information gives you an overview of the research. More information about these topics may be found in the pages that follow.

1. **Why am I being asked to take part in this research study?**
   We are asking you to take part in this research study because you are diagnosed with pregestational Type 2 Diabetes Mellitus or Gestational Diabetes Mellitus requiring insulin therapy in pregnancy.

2. **Why is this research being done?**
   The purpose of our study is to compare different types of insulins used in pregnancy.

3. **What will happen to me during the study?**

If you choose to participate, we will randomize you to either receive Insulin Glargine or Insulin NPH, regardless of what insulin you are currently taking. After receiving instruction on what your new insulin regimen is, you will receive insulin teaching and referral to diabetic nutrition education. You will continue with standard glucose monitoring (fasting, 2 hours after each meal), logging blood glucose (MyLoyola Chart), insulin administration, and prenatal care.

4. **How long will I participate?**
   You will participate all throughout pregnancy until 6 weeks after delivery.

5. **Will I benefit from the study?**
   We do not know if you will benefit from participating in this study. For more information, please see Benefit section below.

6. **What are the risks?**
   This research is considered no more than minimal risk, which means that there is no more expected risk to you than what you might experience should you choose to not participate in the study. Insulin therapy, however, is not without risk. Risks of insulin therapy include hypoglycemia. For details and a list of risks you should know about, please see the Risks/Discomforts section below.

7. **Do I have other options besides taking part in this study?**
   Participation in research is completely voluntary. You decide whether or not to participate. If you choose to not participate, there will be no penalty to you or loss of benefit to which you are entitled. You will be started on a form of insulin at the discretion of the Maternal Fetal Medicine physician initiating your insulin regimen. However, regardless of which insulin you are started on, your data will not be collected for the study.

8. **Will I be paid to participate?**

   You will not receive any payment for taking part in this study.

9. **Will it cost me anything to participate?**

   There is no cost to you for taking part in this study. Either Glargine or NPH will be ordered through electronic prescription to your requested pharmacy and cost of medications will be your own responsibility after insurance coverage is applied.

End of Overview and Key Information

Please review the rest of this document for details about these topics and additional things you should know before making a decision about whether to participate in this research.

PURPOSE OF RESEARCH: We are asking you to take part in this research study because you are diagnosed with pregestational Type 2 Diabetes Mellitus or Gestational Diabetes Mellitus requiring insulin therapy in pregnancy. Currently, many hospitals differ among use of insulin for management of DM in pregnancy, with NPH, glargine and detemir being the most commonly used forms of basal insulin. Outside of pregnancy, NPH is rarely used with glargine and determir being the more common forms of insulin used due to their fewer episodes of hypoglycemia in these patients. Detemir has been well studied in pregnancy and found to be noninferior to NPH. Unfortunately, glargine has not been as well studied in pregnancy. Thus, with this study we want to compare glargine and NPH.

The purpose of this study is to compare two different forms of insulin (Glargine and NPH) that we regularly use to manage diabetes mellitus in pregnancy.
The study is being conducted by Dr. Joana Perdigao and Dr. Nuong Truong, maternal fetal medicine/high risk pregnancy doctors.

Approximately 160 people will participate in this research.

DESCRIPTION AND EXPLANATION OF PROCEDURES: If you agree to participate in this study, you will be randomized to either be started on insulin glargine or insulin NPH. We will provide you with insulin teaching and a referral to diabetic nutrition education. You will continue to monitor your blood glucose as instructed (4 times a day, fasting and 2 hours after each meal), log your blood glucose values in MyLoyola chart, routine prenatal care with maternal fetal medicine/high risk obstetric clinic, and routine ultrasound with serial growth ultrasounds and antenatal fetal surveillance. Logging regularly in the MyLoyola chart will allow us, as the providers, to identify and contact you to address any hypoglycemic episodes (blood glucose <60 mg/dL). We will provide with you instructions on how to manage hypoglycemic episodes (Appendix D). By participating in this study, you will not need to make any extra visits to the hospital compared to if you were not in the study. You will need to continue to come for all your pregnancy visits. Our research team will collect the information. If there are any values that are abnormal, a doctor will call you to tell you what to do next.

(*check here if not applicable: X☐It will be removed upon IRB approval.*)
A description of this clinical trial will be available at *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 website at any time.

(*check here if not applicable*: *X☐It will be removed upon IRB approval.*)

[*If the study is NIH funded, you automatically receive a Certificate of Confidentiality, and must include this section. If the study is not NIH funded but the study has obtained or intends to obtain a Certificate of Confidentiality, insert the following as appropriate*:] For the protection of your privacy, this research is covered by a Certificate of Confidentiality from the National Institutes of Health. The researchers may not disclose or use any information, documents, or specimens that could identify you in any civil, criminal, administrative, legislative, or other legal proceeding, unless you consent to it. Information, documents, or specimens protected by this Certificate may be disclosed to someone who is not connected with the research:

(1) If there is a federal, state, or local law that requires disclosure (such as to report child abuse or communicable diseases);
(2) if you consent to the disclosure, including for your medical treatment;
(3) if it is used for other scientific research in a way that is allowed by the federal regulations that protect research subjects
(4) for the purpose of auditing or program evaluation by the government or funding agency
(5) [If FDA-regulated] if required by 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. 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.

RISKS/DISCOMFORTS: The treatment you are assigned to receive may be associated with more problems or may be less effective than the other treatments in this study that you did not receive. Insulin is the gold standard for management of diabetes mellitus in pregnancy because insulin does not cross the placenta to interact with the baby. The greatest risk with either insulin glargine or insulin NPH would be fetal acidemia from severe maternal hypoglycemia during pregnancy or severe neonatal hypoglycemia postpartum seen with poor glycemic control. Hypokalemia is a rare adverse effect of either forms of insulin. Usually mild cases present with muscle pain or cramps, unusual weakness or fatigue, or constipation. Severe cases may result in arrhythmia and worsening of cardiac function. Thus, you should not use insulin with other oral antihyperglycemic agents at the same time. Lastly, being a participant in any research study you are at risk of loss of confidentiality.

(*check here if not applicable*: *X☐It will be removed upon IRB approval.*)
If you disclose actual or suspected abuse, neglect, or exploitation of a child, or disabled or elderly adult, the researcher or any member of the study staff must, and will, report this to Child Protective Services (i.e. Department of Family and Human Services), Adult Protective Services, and/or the nearest law enforcement agency.

(*check here if not applicable: X☐It will be removed upon IRB approval.*)
If the research shows that you have a reportable communicable disease (for example, tuberculosis [TB] or HIV/AIDS), the researchers may report this to the appropriate authorities.

(*check here if not applicable: X☐It will be removed upon IRB approval.*)
A new Federal law, called the Genetic Information Nondiscrimination Act (GINA), generally makes it illegal for health insurance companies, group health plans, and most employers to discriminate against you based on your genetic information. This law generally will protect you in the following ways:

- Health insurance companies and group health plans may not request your genetic information that we get from this research.
- Health insurance companies and group health plans may not use your genetic information when making decisions regarding your eligibility or premiums.
- Employers with 15 or more employees may not use your genetic information that we get from this research when making a decision to hire, promote, or fire you or when setting the terms of your employment.

All health insurance companies and group health plans must follow this law by May 21, 2010. All employers with 15 or more employees must follow this law as of November 21, 2009.

Be aware that this new Federal law does not protect you against genetic discrimination by companies that sell life insurance, disability insurance, or long-term care insurance.

(*check here if not applicable: X☐It will be removed upon IRB approval.*)
(If your study needs to be GDPR compliant, you need to identify what data or information that you are collecting may be identifiable, why you are collecting it and for how long you will keep it. Additional information regarding GDPR and its requirements can be found here https://www.luc.edu/gdpr/)
*(NOTE: If you need to delete the Reproductive Section **entirely**, check here:X ☐It will be removed upon IRB approval.)*
REPRODUCTIVE AND SEXUAL ACTIVITY INFORMATION: The intervention in this study could affect a developing baby. Therefore, you cannot participate in this research project if you are pregnant or breast feeding.

If you are a woman of childbearing potential, a pregnancy test will be done to make certain that you are not pregnant before beginning the study.

Both men and women who are able to have children must use an effective method of preventing pregnancy while participating in this study.
In addition, as study medications may remain in the body for a period beyond their administration, you will be asked to continue to employ an effective method of preventing pregnancy for [insert text] [*insert period of time*] after you have finished taking the study medication. *{Optional sentence to be inserted based on investigator's judgment. If this text is*

selected for your ICD, please remove these instructions; otherwise, delete this entire paragraph.}
You are encouraged to discuss your preferred method with Dr. [insert text].
(*Chose one*) He / She will answer any questions you have regarding effective methods of preventing pregnancy. It is important that you consult with your physician because some study medications may affect the effectiveness of various methods of preventing pregnancy.

If you become pregnant, suspect that you have become pregnant, or you have fathered a child during the study, notify Dr. [insert text] immediately.
BENEFITS: We do not know if you will benefit from participating in this study. Our outcome is to evaluate for hypoglycemic episodes, thus, depending on which insulin (NPH or Glargine) you are managed with, you may experience fewer hypoglycemic episodes.
ALTERNATIVE TREATMENTS: You do not have to participate in this research project to receive care and treatment at Loyola University Medical Center.

FINANCIAL INFORMATION: Taking part in this study may or may not cost your insurance company more than the cost of getting treatment without being in this study. Some health plan insurers will not pay the costs for people taking part in studies. Check with your health plan insurer to find out what they will pay for. Depending on your health insurance coverage, there may be out-of-pocket costs for you like co-payment of the insulin therapy, glucose monitoring, standard visits, co-insurance, or deductibles. You will be responsible for these expenses.
RESEARCH RELATED INJURY:
In the event that you are injured or have side effects as a result of participating in this research project, your doctor will take the necessary steps to treat the problem. There are no funds available from Loyola University Medical Center, Gottlieb Memorial Hospital, Loyola University Health System or Loyola University of Chicago to pay for the cost of care of the problem. You will be financially responsible for the cost of care of any problems. By signing this form, you are not giving up any legal rights to seek to obtain compensation of injury.
INFORMATION COLLECTED AND WHAT WILL HAPPEN TO IT: In order to meet the goals of the research study (see Purpose of Research section of this consent), we will collect information on you, your test results, and how you do from you and your Loyola University Medical Center or Gottlieb Memorial Hospital medical records. The information will be collected by Dr. Joana Perdigao, Dr. Nuong Truong, the study physician(s), the research assistants, and data administrators.

Information about you will be provided to Loyola University of Chicago; Loyola University Medical Center, the research sponsor; data collection and study verification agencies; and/or government regulatory agencies such as the Food and Drug Administration.

Data will be saved in a protected research space. Dr. Joana Perdigao, Dr. Nuong Truong, the study physician(s), the research assistants, and data administrators will have access to your personal information.

In this way, we will learn insulin Glagine is noninferior to insulin NPH in the management of diabetes mellitus complicating pregnancy.

The information we will collect and send includes:
(*Select what information, IF ANY, will be sent to the sponsor or the sponsor's designee. Place an "X" beside the sentence if it is applicable; if not, delete the line. When finished, delete these instructions.)*

__X__ DEMOGRAPHIC INFORMATION (e.g., name, address, phone number)

__X__ MEDICAL RECORD (including, but not limited to, history and physical exam notes, progress notes, consultation reports, laboratory test results, AND/OR operative reports)

We will collect and provide this information about your age, gravidity, parity, weight, height, medical issues, and vital signs. We will keep this information until the study is completed. Once the information is disclosed outside of Loyola University Medical Center or Gottlieb Memorial Hospital, it may no longer be protected by federal privacy laws.

We will remove or code any personal information that could identify you before data and/or samples are shared with other researchers to ensure that no one will be able to identify you from the data we share, however this cannot be guaranteed. Once identifying information is removed, the information and samples cannot be withdrawn from further use. You will not be asked to sign an additional consent for this use.

(*check here if not applicable: X☐It will be removed upon IRB approval.*)
If a commercial product is developed from the tissue or blood samples collected as part of this research project, the commercial product will be owned by [Insert appropriate entity]. You will not profit financially from such a product.

(*check here if not applicable: X☐It will be removed upon IRB approval.*)
Cells obtained from your body may be used to establish a cell line which may be shared in the future with other researchers and which may be of commercial value. A cell line is one which will grow indefinitely in the laboratory. .

→ *If any human materials (tumor tissue, bone marrow, blood, etc.) are used for establishing a cell line which may be shared with other researchers and which may in the future be of commercial value, the subject must be informed of the fact in the consent form.*

→ *Any research conducted from specimens/cells/blood/tissue previously collected and stored must have IRB Approval prior to the initiation of the study.*

(*check here if not applicable:X ☐It will be removed upon IRB approval.*)
We may use the specimens collected as a part of this study for whole genome sequencing, which involves mapping all of your DNA.

- *Describe what information will be gained, how the information will be used and stored, any risks of whole genome sequencing, and whether the information will be provided back to the subject, and, if so, whether it may be clinically relevant.*

The results of this research study may be published in a journal for the purpose of advancing medical knowledge. You will not be identified by name or by any other identifying information in any publication or report about this research.

Consent for LUMC to use and disclose your medical information is required in order for you to participate in the study.

This authorization does not expire.

WITHDRAWAL OF CONSENT: Your consent to use and disclose your medical information for the purpose of this research study is completely voluntary. You can withdraw your consent to use and disclose your information and your consent to participate in this study at any time without affecting your ability to receive care and treatment at Loyola University Medical Center or Gottlieb Memorial Hospital, as applicable, unrelated to the research study. Withdrawal means that all study procedures and follow-up will stop and we will not send any more information about you to the sponsor of this research or its designees. However, information already used and disclosed to the research sponsor prior to the time of your withdrawal from this study may continue to be used and disclosed by Loyola University of Chicago and the sponsor.

Your regular pregnancy is not a part of the study. You will need to continue to come for all routine pregnancy visits and ultrasounds. If you withdraw from the study, you will need to contact your physician(s) to discuss what other options may be available.
If you withdraw from the study, we will ask that you sign the form attached to this consent and send it to Dr Nuong Truong or give it to the study staff. Your withdrawal from the study will not have any effect on any actions by Loyola University Medical Center, Gottlieb Memorial Hospital, or Loyola University of Chicago taken before the attached form is received by Loyola University of Chicago.

Your study doctor, the Institutional Review Board, the regulatory authorities, may terminate the study at any time with or without your consent.
Your study doctor may choose to take you out of the study because of unexpected or serious side effects, treatment non-compliance, or because you are not taking the medication as you were instructed. You may also be removed from the study if your study doctor feels that you are not benefiting from the study treatment.

CONSENT

I have fully explained to _____ the nature and purpose of the above-described procedure and the risks that are involved in its performance. I have answered and will answer all questions to the best of my ability.

_____Date:____/_____/____
Signature

Dr Joana Perdigao and Dr. Nuong Truong, the principal investigators for this study, or their associates will be available to answer any questions you may have. Dr. Nuong Truong can be reached at: nuong.t.truong@luhs.org

If you ever feel that you have been injured by participating in this study or if you have any questions concerning your rights as a research participant, you may contact Cynthia Tom, MA,

CIP, Director of the Human Research Subjects Protection Program and Chair of the Institutional Review Board for the Protection of Human Subjects-Loyola University Chicago Health Sciences Campus at 708-216-6198.

Although you have the right to revoke this authorization, you accept that such revocation will not apply to any uses and disclosures of your information that are described in the Loyola University Health System Notice of Privacy Practices or otherwise allowable under any Federal or State laws.

You will receive a signed copy of this informed consent document.

You have been fully informed of the above described research program with its possible benefits and risks. Your signature below indicates that you are willing to participate in this research study and agree to the use and disclosure of information about you as described above. You do not give up any of your legal rights by signing this consent document.

_____Date:____/_____/____
Signature: Participant

_____Date:____/_____/____
(Signature: Witness)

PROJECT TITLE: Randomized controlled trial of Glargine versus neutral protamine Hagedorn insulin for the treatment of diabetes mellitus in pregnancy

REVOCATION OF AUTHORIZATION TO
RELEASE PROTECTED HEALTH INFORMATION (PHI)

I, _____, hereby revoke my consent to participate in the study titled, "Randomized controlled trial of Glargine versus neutral protamine Hagedorn insulin for the treatment of diabetes mellitus in pregnancy", at Loyola University Medical Center, Gottlieb Memorial Hospital, or Loyola University of Chicago, as applicable. I also revoke my consent to release information I provided to Loyola University Medical Center, Gottlieb Memorial Hospital, or Loyola University of Chicago, as applicable, that allowed use and disclosure of my medical information to Dr. Joana Perdigao and Dr. Nuong Truong as outlined on the consent form, which I signed on ____/_____/____ (INSERT DATE CONSENT WAS SIGNED ORIGINALLY). I understand that this revocation does not apply to any action Loyola University Medical Center, Gottlieb Memorial Hospital, or Loyola University of Chicago, as applicable, have taken in reliance on the consent I signed earlier.

_____Date:____/_____/____
Signature: Participant

Please return this form to:
Dr. Nuong Truong
Loyola University of Chicago
2160 South First Avenue
Maywood, Illinois 60153
nuong.t.truong@luhs.org