INFORMED CONSENT FORM

Study Title	Furosemide Stress Test and Serum Biomarkers as Predictive Markers for Progression of Acute Kidney Injury in Patients with Hypoalbuminemia.
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You have been invited to participate in a research study. This document contains important information about the purpose of the study, what you will do if you decide to participate, and the way in which we would like to use your personal information and that of your health.

It may contain words that you do not understand. Please ask your physician or the study staff to explain any word or information that is not clear to you.

1. WHAT IS THE PURPOSE OF THE STUDY?

The purpose of this study is to assess 2 diagnostic tools useful for physicians, known as the "Furosemide Stress Test" and "NGAL," which were used to assess the progression of Acute Kidney Injury from stages 1 and 2 to stage 3. Acute Kidney Injury is when there is damage to the kidney organ within a period of less than 7 days.

The "Furosemide Stress Test" consists of a test in which the patient is given a medication that helps them urinate, called furosemide, in order to assess kidney function. The "NGAL" test consists of taking a urine sample of approximately 10 mL, in which markers that damage the kidney will be sought.

You or your family member are asked to participate because you meet the inclusion criteria established by the investigators.

The research in which you or your family member will participate is important because, with the results obtained, it will allow us to learn about the usefulness of these tests in patients with characteristics similar to yours.

2. WHAT WILL BE THE DURATION OF THE STUDY AND HOW MANY PARTICIPANTS WILL THERE BE IN THIS STUDY?

The duration of the study will be approximately 8 months, in which 54 research subjects are expected to be included, all from this center; however, the administration of the medication and the collection of the urine sample will be carried out on a single day, and the rest of the research will continue for 15 days with the review of the clinical record.

3. WHAT ARE THE REQUIREMENTS THAT WILL BE TAKEN INTO ACCOUNT FOR MY PARTICIPATION?

The inclusion criteria are the following:

- Men and women over 18 years of age.
- Patients with albumin below 3 g/dL. (Albumin is a protein found in the blood and measured through laboratory methods.)
- Patients with a diagnosis of Acute Kidney Injury in stages 1 and 2 according to the Kidney Disease Improving Global Outcomes (KDIGO) guidelines.
- Patients fluid-resuscitated at the discretion of the nephrologist, that is, patients who are not dehydrated or with too much water.
- Patients with the presence of cellular casts in the urinary sediment, defined as a George Washington Urine Sediment Score greater than 2 or with a Fractional Excretion of Sodium (FENa) greater than 1; this is determined by observing the urine under a microscope.
- Patients with a Foley catheter (urinary catheter).
- Patients who agree to the study through informed consent.

And the exclusion criteria are the following:

- Pregnant patients.
- Patients under 18 years of age.
- Patients with obstructive urinary pathology, that is, diseases that affect the tract through which urine passes and that may affect kidney function.
- Patients with evidence of active bleeding.
- Patients with allergy or sensitivity to loop diuretics. (Loop diuretics are medications that help the patient urinate.)
- Patients with Acute Kidney Injury in stage 3 according to the Kidney Disease Improving Global Outcomes (KDIGO) guidelines.
- Patients with inadequate fluid resuscitation prior to the stress test, that is, patients who are not dehydrated or with too much water.
- Patients with previously known Chronic Kidney Disease. (Chronic kidney disease is known as when there is damage to the kidney organ that has been present for 3 months or more.)

- Patients with a Glomerular Filtration Rate below 30 mL/min. (The glomerular filtration rate refers to the amount of blood that the kidney filters per minute and is calculated using laboratory values.)

4. WHAT IS THE TREATMENT OF THE STUDY?

As part of this research study, you will not be given any treatment in addition to your usual medical care.

5. WHAT ARE THE PROCEDURES THAT WILL BE PERFORMED ON ME?

If you or your family member meets the inclusion and exclusion criteria already mentioned and agrees to our research by giving us your consent, a 10 mL urine sample will be taken to perform the NGAL test, which will identify markers of kidney damage in your urine. In addition, after the evaluation with this test, a dose of 1 milligram per kilo of a medication called furosemide will be administered, or, in case this medication has already been administered to you in the last week, 1.5 mg per kilo will be administered on a single occasion, in order to evaluate your kidney function by quantifying the urine produced in the following 6 hours.

Likewise, before the medication is given, an evaluation will be performed using ultrasonography or “echo” of the abdomen, and also an assessment using electrical bioimpedance, with the intention of evaluating how hydrated or dehydrated you are.

Bioimpedance is a device that, as mentioned, also allows the assessment of how dehydrated or hydrated you are, being a simple, easy intervention that will not generate any additional discomfort, as it consists of placing some “pads” or adhesives connected to the device.

Both for the ultrasound assessment and for the bioimpedance, you do not need to perform any additional action or move.

6. WHAT WILL YOU DO IF YOU DECIDE TO PARTICIPATE IN THIS STUDY?

If you give your consent to participate, the tests described above will be performed, and in addition you will be followed for 15 days to assess the need for Renal Replacement Therapy, that is, hemodialysis and/or peritoneal dialysis, and mortality.

7. WHAT ARE THE POSSIBLE RISKS OR DISCOMFORTS?

The risks of the study procedures include:

- Unknown allergic reaction to furosemide
- Decrease in blood pressure
- Decrease in blood potassium
- Hearing impairment

The effects mentioned above are caused in a very low percentage by the administration of the medication furosemide.

In relation to the NGAL test, it does not generate any discomfort, since only the collection of 10 mL of urine is necessary, which will be obtained from the collection bag.

In relation to the ultrasound or “echo” assessment, the possible discomfort that you will present is that the gel is cold and you feel a little pressure on the abdomen from the echo; nevertheless, it will not generate any risk or major discomfort.

In relation to the assessment using electrical bioimpedance, as with the ultrasound, you might feel discomfort at the time of placing the gel and the pressure of the “pads” that are placed on various parts of the body for the measurement; however, it does not confer any major discomfort.

8. WHAT ARE THE POSSIBLE BENEFITS FOR YOU OR FOR OTHERS?

It is likely that you will not have a direct benefit from participating in this research study; however, participation in this study may help physicians to better understand the usefulness of the Furosemide Stress Test and “NGAL” as predictors of progression of Acute Kidney Injury in patients with low blood albumin (a protein).

9. WHAT OTHER PROCEDURES OR TREATMENTS COULD BE AVAILABLE TO YOU?

As part of this research study, you will not be given any treatment in addition to your usual medical care.

10. WILL YOUR PARTICIPATION IN THIS STUDY GENERATE ANY COST?

There will be no costs to you for participating in this study.

Tests or procedures that are part of this study will be performed, which will be paid for by the study physician, and other examinations and procedures that are part of your usual medical care that will not be paid for. If you do not have medical insurance or your insurance does not cover the costs of usual medical care, you will be responsible for covering those costs.

The study physician will provide you with the medication and the tests during this study, which will be free of charge.

11. WILL YOU BE PROVIDED WITH ANY FINANCIAL COMPENSATION FOR TRANSPORTATION EXPENSES?

Not applicable.

12. WILL YOU RECEIVE ANY PAYMENT FOR YOUR PARTICIPATION IN THIS STUDY?

You will not receive any payment for participation in this study.

13. WILL BLOOD OR TISSUE SAMPLES BE STORED FOR FUTURE RESEARCH?

Your samples will be used only for this research and will not be commercialized nor used to create immortal cell lines or for other research.

14. WHAT SHOULD YOU DO IF SOMETHING HAPPENS TO YOU AS A RESULT OF PARTICIPATING IN THIS STUDY?

If you or your family member suffers an injury or illness during your participation in the study, you should seek treatment through your primary care physician or medical care center of choice and must inform the study physician immediately.

The expenses generated by such injury or illness will only be paid if the study physician has decided that the injury/illness is directly related to the study procedures, and is not the result of a pre-existing condition of the normal progression of your illness, or because the indications recommended by the study physician have not been followed.

15. WHAT ARE YOUR RIGHTS AS A RESEARCH SUBJECT?

If you decide to participate in this study, you have the right to be treated with respect, including the decision whether or not to continue your participation in the study. You are free to end your participation in this study at any time.

16. CAN YOU END YOUR PARTICIPATION AT ANY TIME DURING THE STUDY?

Your participation is strictly voluntary. If you wish to suspend your participation, you may do so freely at any time and must notify the principal investigator of this study in writing. If you choose not to participate or to withdraw from the study, your present and/or future medical care will not be affected, and you will not incur penalties or lose the benefits to which you would otherwise be entitled.

Your participation may also be suspended or terminated by the study physician, without your consent, for any of the following circumstances:

- That the study has been canceled.
- That the physician considers it to be best for you.
- That you need a procedure or medication that interferes with this research.
- That you have not followed the physician's indications, which could bring health problems as consequences.

If you decide to withdraw from this study, you must do the following:

- Notify your treating study physician.
- You must return all material that your physician requests.

If your participation in the study is terminated, for any reason, for your safety, the physician will continue with clinical follow-ups. In addition, your medical information collected up to that moment may be used for research purposes.

17. HOW WILL THE CONFIDENTIALITY OF YOUR PERSONAL DATA AND THE INFORMATION IN YOUR CLINICAL RECORD BE PROTECTED?

If you agree to participate in the research, the study physician will collect and record confidential personal information about your health and your treatment. This information will not contain your full name or your home address, but it may contain other information about you, such as initials and date of birth. All this information is intended to guarantee the scientific integrity of the research. Your name will not be known outside the Institution unless required by our Law.

You have the right to control the use of your personal data in accordance with the Federal Law on the Protection of Personal Data Held by Private Parties, as well as to request access, correction, and opposition to your personal information. The request will be processed in accordance with current data protection regulations. However, certain information may not be available until the study is completed, this being in order to protect the integrity of the Study.

The Faculty of Medicine and University Hospital, as well as the Investigator, will be responsible for safeguarding the information in accordance with local regulations.

You have the right to request in writing from the physician a summary of your clinical record.

The personal information about your health and your study treatment may be processed or transferred to third parties in other countries for research purposes (ensuring that their regulations comply with the minimum requirements of the Federal Law on the Protection of Personal Data Held by Private Parties to always protect their privacy and confidentiality) and security reports, including local regulatory agencies (the Ministry of Health, SSA, through COFEPRIS), as well as the Research Ethics Committee and the Research Committee of our Institution.

For the purposes of this study, health authorities such as the Ministry of Health and/or the Research Ethics Committee and/or the Research Committee of our Institution may inspect your clinical record, including data that were collected before the start of your participation, which may include your name, address, or other personal information.

If necessary, these audits or inspections may make photocopies of part or all of your clinical record. The reason for this is to ensure that the study is being carried out properly, with the purpose of safeguarding your rights as a research subject.

The results of this research study may be presented at meetings or in publications.

The information collected during this study will be compiled in the investigator's databases, which may be used in other studies in the future. These data will not include confidential personal medical information. Anonymity will be maintained.

By signing this document, you authorize the use and disclosures of the information about your health status and treatment identified in this consent form. You will not lose any of your legal rights as a research subject. If there are changes in the use of your information, your physician will inform you.

18. IF YOU HAVE QUESTIONS OR CONCERNS ABOUT THIS RESEARCH STUDY, WHOM CAN YOU CALL?

In case you have any question related to your rights as a research subject of the Faculty of Medicine and University Hospital, you may contact Dr. Óscar de la Garza Castro, Chairman of the Research Ethics Committee of our Institution, or Lic. Jaime Iván Aponte Vázquez in case you have doubts in relation to your rights as a patient.

Research Ethics Committee of the Hospital Universitario "Dr. José Eleuterio González."
Av. Francisco I. Madero y Av. Gonzalitos s/n
Col. Mitras Centro, Monterrey, Nuevo León, Mexico. CP 64460
Phones: 8183294050 ext. 2870 to 2874
Email: investigacionclinica@meduanl.com

CONSENT SUMMARY
TO BE COMPLETED BY THE RESEARCH SUBJECT

- ☐ My participation is completely voluntary.
- ☐ I confirm that I have read and understood this document and the information provided about the study.
- ☐ I confirm that the study has been explained to me, that I have had the opportunity to ask questions, and that I have been given sufficient time to decide on my participation. I know whom I should contact if I have more questions.
- ☐ I understand that the sections of my medical notes will be reviewed when pertinent by the Research Ethics Committee or any other regulatory authority to protect my participation in the study.
- ☐ I accept that my personal data be filed under codes that allow my identification.
- ☐ I accept that my biological materials (urine sample) collected may be used for the purposes that are convenient to this study.
- ☐ I accept that my general physician be informed of my participation in this study.
- ☐ I accept that the information about this study and the results of any examination or procedure may be included in my clinical record.
- ☐ I confirm that I have been given a duplicate of this signed consent document.

Name of the Research Subject	Signature
Date	
Name of the Legal Representative (if applicable)	Signature
Date	

FIRST WITNESS

Name of the First Witness _____ Signature _____

Address _____

Date _____ Relationship to the Research Subject _____

SECOND WITNESS

Name of the Second Witness _____ Signature _____

Address _____

Date _____ Relationship to the Research Subject _____

PERSON OBTAINING CONSENT

I have discussed the foregoing and have clarified the doubts. To the best of my knowledge and understanding, the subject is providing their consent both voluntarily and in an informed manner, and he/she possesses the legal right and the sufficient mental capacity to grant this consent.

Name of the Person Obtaining Consent _____ Signature _____

Date _____