ALBERT EINSTEIN COLLEGE OF MEDICINE
MONTEFIORE MEDICAL CENTER

DOCUMENTATION OF INFORMED CONSENT AND HIPAA AUTHORIZATION

Introduction

You are being asked to participate in a research study called "**A Smartphone Based Automated Directly Observed Treatment Improves Adherence and SVR to Fixed-Dose Elbasvir and Grazoprevir in PWIDs: A Randomized Controlled Trial**". Your participation is voluntary -- it is up to you whether you would like to participate. It is fine to say "no" now or at any time after you have started the study. If you say "no," your decision will not affect any of your rights or benefits or your access to care.

The researcher in charge of this project is called the "Principal Investigator." Her name is Julia Arnsten, MD, MPH. You can reach Dr. Arnsten at:
3300 Kossuth Avenue
Bronx, NY 10467
718-920-7102
For questions about the research study, or if you believe you have an injury, contact the Principal Investigator or the IRB.

The Institutional Review Board (IRB) of the Albert Einstein College of Medicine and Montefiore Medical Center has approved this research study. The IRB # is in the stamp in the upper right hand corner. If you have questions regarding your rights as a research subject you may contact the IRB office at 718-430-2253, by e-mail at irb@einstein.yu.edu, or by mail:

Einstein IRB
Albert Einstein College of Medicine
1300 Morris Park Ave., Belfer Bldg #1002
Bronx, New York 10461

Support for this research study is provided by **Merck & Co., Inc.**

Why is this study being done?

We are interested in learning if people are better able to take all doses of prescribed Hepatitis C (HCV) treatment medications completely while using a Smartphone App (called AiCure) as compared to medication adherence rates for those people who take their HCV treatment medication as usual, which is on their own without the assistance of a Smartphone App. The App visually confirms that people have taken their medication.

We want to help people adhere to taking their medication as advised by their medical doctor and also to find out if the App is acceptable for use by people receiving HCV treatment medications. Some subjects enrolled in this research study will take their medications while using the App, and some subjects enrolled in this research will take their medications on their own, without using the App. The HCV treatment medication Zepatier (Elbasvir and Grazoprevir) will be used in this research study.

AiCure's advanced, artificial, medication adherence platform is cleared by the U.S. Food and Drug Administration (FDA) for use and for distribution.

Zepatier and Ribavirin are both approved by the U.S. Food and Drug Administration (FDA) to treat **chronic hepatitis C infection in certain patients**.

Why am I being asked to participate?

You are being asked to participate in this study because you have been identified as a person with HCV who is interested in cure, and your health care provider has decided that you will receive treatment with Zepatier.

How many people will take part in the research study?

You will be one of about **75** people who will be participating in this study conducted through Montefiore Medical Center.

How long will I take part in this research?

It will take you about 24 weeks to complete this research study. During this time, we will ask you to make 10 study visits to Montefiore Medical Center or other locations.

What will happen if I participate in the study?

Randomization

You will be placed in one of three **study groups** in this study. This placement is done completely at random (like by flipping a coin). We have no control over your group assignment.

The three groups are: a treatment group (**AiCure App**), a treatment group (**AiCure App**) plus gamification, and a control group (**treatment as usual**, with no App). In the treatment group, the app will be tested as participants receive HCV care. In the control group, the app will not be tested, but participants will receive HCV care.

In the treatment sub-group (**AiCure App with gaming**), there will be a gaming feature to test whether competition encourages engagement with the App and helps to increase adherence to HCV medication.

Treatment as Usual, no App Study Group (control group)

- At the screening/enrollment visit, you will be asked to complete consent forms and we will collect demographic and contact information. You will also be introduced to the AiCure app and practice using it. This visit will last about 45 minutes.
- We will also review your medical and pharmacy records to help us determine your eligibility for the study, and collect some of your medical data and health information for the research, such as your hepatitis antibodies and genotype. We will review your medical and pharmacy records every four weeks while you are in the study and four weeks and 12 weeks after you have completed the study.

- At your first treatment visit (baseline visit / week 0), you will be asked to complete a questionnaire. You will also begin taking Zepatier with or without Ribavirin. This visit will last about 1 hour.
- For the next 12 weeks you will continue to take your dose of Zepatier with or without Ribavirin.
- At monthly visits (Weeks 4, 8, 12) you will meet with research study staff to demonstrate and confirm that you are properly taking your Zepatier with or without Ribavirin doses. You will be asked to return your bi-weekly medication packets. These visits will last about 30 minutes.
- At Week 4 (study visit 1 / week 4) a blood sample (1-2 teaspoons) will be collected to identify the lowest concentration of Zepatier in your bloodstream (through blood level). The blood test is done to verify medication adherence.
- You will be asked to provide urine at each visit which will be tested for drugs (such as cocaine, opiates, or benzodiazepines) and medications. Your urine will also be collected to verify medication adherence. These results are kept confidential from your doctors and counselors; only the research staff will see them.
- At week 16 (study visit 4 / week 16), you will be asked to complete a questionnaire. This visit will last about 1 hour.

AiCure App Study Group (treatment)

- At the screening/enrollment visit you will be asked to complete consent forms and a short questionnaire. You will also be introduced to the AiCure App and practice using it. This visit will last about 20 minutes.
- We will also review your medical and pharmacy records to help us determine your eligibility for the study, and collect some of your medical data and health information for the research, such as hepatitis antibodies and genotype. We will review your medical and pharmacy records every four weeks while you are in the study and four weeks and 12 weeks after you have completed the study.
- At your first treatment visit (Week 1) you will be given access to the AiCure App or assigned a smartphone with the App. You will take your first dose of Zepatier using the App to confirm ingestion. You will also be asked to complete a short questionnaire. This visit will last about 1 hour.
- If you are assigned a smartphone, you will return it at the end of the study.
- For the next 12 weeks you will continue to take your dose of Zepatier using the App to confirm ingestion.
- At monthly visits (Weeks 4, 8, 12) you will meet with research study staff to demonstrate and confirm that you are properly using the AiCure App while taking your Zepatier doses. You will be asked to return your bi-weekly medication packets. These visits will last about 30 minutes.
- At Week 4 a blood sample (4-6 mL) will be collected to identify the lowest concentration of Zepatier in your bloodstream (through blood level). The blood test is done to verify medication adherence.
- You will be asked to provide urine at each visit which will be tested for drugs (such as cocaine, opiates, or benzodiazepines) and medications. Your urine will also be collected to verify medication adherence. These results are kept confidential from your doctor and counselors; only the research staff will see them.
- At week 16 you will be asked to complete a short questionnaire. This visit will last about 1 hour.

AiCure App with Gaming Study Group (treatment plus gamification)

- You will compete for the highest medication adherence against other participants also using the app by engaging in elements of gaming (points scored, rules of play, etc.).
- If you have a high medication adherence at your monthly visit compared to other participants who are also competing, you will receive modest cash incentives.

Will there be audio and/or video recording?

Each time you take your Zepatier dose during the 12 weeks that you are using the AiCure App the software will visually and automatically confirm that you are taking your medication. Your identity will be confirmed using facial recognition: you will show the medication to the camera of the smartphone and then place the medication on your tongue. Your medication adherence data will automatically be transferred to a centralized dashboard. Patient information is de-identified through blurring of identifiable portions of the patient's face.

Genetic Testing

This study will not involve genetic research or genetic testing.

Specimen Banking (Future Use and Storage)

We will store your specimens and information about you in a "biobank", which is a library of information and specimens (tissue and blood) from many studies. These specimens and information cannot be linked to you. In the future, researchers can apply for permission to use the specimens and information for new studies to prevent, diagnose, or treat disease, including genetic research. Your specimens and information may be kept for a long time, perhaps longer than 50 years. If you agree to the future use, some of your de-identified genetic and health information (not linked to you) may be placed into one or more scientific databases. These may include databases maintained by the federal government.

You can choose not to participate in the biobank and still be part of the main study and this will not affect your treatment at this facility.

INITIAL ONE (1) OF THE FOLLOWING OPTIONS
_____ I consent to have my specimens and information about me used for future research studies.

_____ I do NOT consent to have my specimens and information about me used for future research studies. Information about me will be kept as long as required by regulations and institutional policy, but will not be used for future studies.

Will I be paid for being in this research study?

You will receive $25 per study visit and an additional $10 for each returned blister pack. If you are randomized to the treatment group with no gamification, at each study visit you will also be provided with incentives based on adherence with $10 for 50% adherence, $20 for 80% adherence, and $30 for 95% adherence. If you are randomized to the treatment plus gaming group, you will receive all the same incentives of the treatment group with no gamification, plus

$50 if you have the highest adherence to your medication compared to other participants who are also in this group, or $25 if you have the second-highest adherence compared to other participants who are also in this group. You will receive a round-trip Metrocard ($5.50) at each visit, regardless of your group assignment. Overall, you may earn up to $453 over the course of the study including Metrocards and incentives, depending on how adherent you are to your medication, if you are assigned to the treatment and/or gaming sub-group. If you choose to withdraw from the study before all visits are completed, you will be paid only for the visits you completed.

Some researchers may develop tests, treatments or products that are worth money. You will not receive payment of any kind for your specimens and information or for any tests, treatments, products or other things of value that may result from the research.

Will it cost me anything to participate in this study?

Taking part in this study will not involve added costs to you. You and/or your insurance company will have to pay for any costs that are part of your regular medical care, such as medical visits with your doctor and any procedures included in said visits.

What will happen if I am injured because I took part in this study?

If you are injured as a result of this research, only immediate, essential, short-term medical treatment, as determined by the participating hospital or sponsoring company, will be available for the injury without charge to you personally.

- No monetary compensation will be offered.
- You are not waiving any of your legal rights by signing this informed consent document.
- In addition, the sponsor will provide reimbursement for the reasonable costs of medical treatment.

Immediately report any discomforts, problems or injuries you experience during the course of your participation in the study to Dr. Julia Arnsten, (718) 920-7102.

What else do I have to do?

- You must tell the research study doctor about any past and present diseases or allergies you are aware of and about all medications you are taking including “over-the-counter” remedies and nutritional supplements or herbs.
- You must take your study drug as instructed, returning any unused study drug (including any empty bottles), at every visit.
- If you do not feel well at any time, call your doctor or the research study doctor immediately.
- ***Drugs may cause a reaction that, if not treated promptly, could be life-threatening. It is important that you report all symptoms, reactions and other complaints to the research study doctor.***
- If you think you have become pregnant, contact your research study doctor immediately.

- If any other doctor recommends that you take any medicine, please inform him/her that you are taking part in a research study. You should give the other doctor the research study doctor's name and phone number.
- You may carry out all your normal daily activities.

Confidentiality

We will keep your information confidential. Your research records will be kept confidential and your name will not be used in any written or verbal reports. Your information will be given a code number and separated from your name or any other information that could identify you. The form that links your name to the code number will be kept in a secure manner and only the investigator and study staff will have access to the file. All information will be kept in a secure manner and computer records will be password protected. Your study information and specimens will be kept as long as they are useful for this research.

Medical information collected during the research, such as test results, may be entered into your Montefiore electronic medical record and will be available to clinicians and other staff at Montefiore who provide care to you.

The only people who can see your research records are:

- the research team and staff who work with them
- the organization that funded the research
- groups that review research (the Einstein IRB, and the Office for Human Research Protections.

These people, who receive your health information, may not be required by privacy laws to protect it and may share your information with others without your permission, if permitted by laws governing them. All of these groups have been asked to keep your information confidential.

Are there any times you would not keep my data confidential?
If you give us information that suggests that your child or any other child is being abused, we are required by law to report that information to the Administration for Children's Services (ACS). Reporting this information may put you, your family, or others who are involved at risk of questioning and legal action by the authorities.

If you give us information that you may hurt yourself or anyone else, we will report these circumstances to a mental health provider or physician for evaluation and/or referral.

Are there any risks to me?

Risks of Zepatier

Common side effects of taking Zepatier that you may experience because of taking it are: fatigue, headache, nausea, abdominal pain, diarrhea, shortness of breath, rash or itching, irritability, joint pain, depression, or anemia.

Questionnaire
Because you will be asked questions about substance use, HIV, Hepatitis C, and other issues related to your physical and mental state, it is possible that such questions could produce discomfort or anxiety. You do not have to answer any questions that you do not want to.

Blood Draw
Rarely, the vein where we inserted the needle will become sore or red. Sometimes, a temporary harmless “black and blue” may develop. Very rarely, fainting may occur.

New Findings
If we learn any significant new findings during the study that might influence your decision to participate, we will contact you and explain them.

Are there possible benefits to me?

You may or may not receive personal, direct benefit from taking part in this study. If you are placed in the AiCure App study group, the possible benefits of taking part in this study include **increased medication adherence which may result in Sustained Viral Load (SVR) and HCV cure**.

Your participation will generate important information that may benefit other persons living with HCV in the future.

What choices do I have other than participating in this study?

You can refuse to participate in this study. If you decide not to participate, the medical care providers at this facility will still give you all of the standard care and treatment that is appropriate for you.

Your other choices are:
- To receive treatment for HCV infection and not participate in this research study.

Are there any consequences to me if I decide to stop participating in this study?

No, if you decide to take part, you are free to stop participating at any time without giving a reason. If you stop participating, it will not affect your care and you will continue to be treated at this facility. However, some of the information may have already been entered into the study and that will not be removed. The researchers may continue to use and share the information they have already collected.

To revoke (take back) your consent and authorization, you must contact the Principal Investigator in writing at the address on page 1 of this form. However, you may first call or speak to the Principal Investigator and he will stop collecting new information about you. If you take back your consent and authorization, you will not be allowed to continue to participate in this research study.

Can the study end my participation early?

We will not let you participate in the study any more if you fail to follow the instructions given to you by the research staff. In addition, your participation will end if the investigator or study sponsor stops the study earlier than expected.

CONSENT TO PARTICIPATE

I have read the consent form and I understand that **it is up to me whether or not I participate**. I know enough about the purpose, methods, risks and benefits of the research study to decide that I want to take part in it. I understand that I am not waiving any of my legal rights by signing this informed consent document. I will be given a signed copy of this consent form.

Printed name of participant	Signature of participant	Date
Printed name of the person conducting the consent process	Signature	Date