STUDY TITLE: Medtronic CoreValve™ Evolut R™ FORWARD Study

SPONSOR: Medtronic Bakken Research Center B.V. ("Medtronic")

Endepolsdomein 5

6229 GW Maastricht, The Netherlands

PRINCIPAL [PI Name]
INVESTIGATOR: [Address]

[City, Province/State, Postal/Zip Code, Country (use terms as

appropriate)]

STUDY RELATED During regular office hours: [Phone #] **TELEPHONE:** Outside regular office hours: [Phone #]

Why am I being asked to be in this study?

You are being asked to be in a study that involves clinical research. Being in this study is voluntary. Before you decide if you would like to be in the study, it is important you understand why the study is done and what it will involve. Please read this form carefully and ask your doctor any questions you may have. After reading this form and you have asked any questions you have, and you decide to be in this study you will sign and date the last page of this form.

You are being asked to be in this study entitled Medtronic Corevalve™ Evolut R™ FORWARD Study ("FORWARD study") because you have aortic stenosis and your doctor recommends that you get treated with the Medtronic CoreValve™ Evolut R™system ("Evolut R system"). If you agree to be in this study you will get a Medtronic Evolut R™ aortic valve implanted using the Evolut R system.

The aortic valve is one of the four heart valves that control the blood flow into and out of the heart. It is located in the main pumping chamber of the heart called the left ventricle. The aortic valve lets oxygen-containing blood to be pumped out of the heart, from the left ventricle into the main artery (aorta) delivering blood to the body.

Aortic stenosis means that the aortic valve has become abnormally narrow through a process of thickening and stiffening of the aortic valve leaflets. This means the aortic valve cannot open properly and the heart will have to work harder to pump the same amount of blood through the valve into the body. As a result the pressure in the left ventricle will build up and the heart muscle will thicken. Symptoms such as chest pain (angina), tiredness or shortness of breath may develop.

The standard treatment for patients with severe aortic stenosis is open-heart surgery to replace the diseased aortic valve. Some patients with severe aortic stenosis also have other health problems. These problems cause them to have a high or greater risk of complications during open-heart surgery. In this case Transcatheter Aortic Valve Implant (TAVI) is often chosen as a treatment option.

[Use for countries where the study will be data collection only, no investigational or experimental components:] The Evolut R system mentioned above is CE marked and is approved for use in standard practice in patients who have severe aortic stenosis. For this study, we will only be collecting data.

[Use for countries where the EvolutR system is investigational] The Evolut R system being used in this study is investigational because it has not been approved by your Country regulatory agency and therefore not approved for use as standard practice in your country.

Study purpose:

The purpose of this study is to document the clinical and device performance outcomes of the Evolut R system used in routine hospital practice.

System description:

The sponsor of this study, Medtronic has developed a heart valve called Evolut R. It is made of pig tissue attached to a metal frame. The valve is implanted using a catheter without the need for open-heart surgery. The study valve is compressed so it can go into the catheter. It is then expanded in the heart inside the diseased valve so it can act as a replacement. Sometimes, after the doctor expands the valve he/she would like to move it. The Evolut R valve can be compressed again and moved to a different position.



How long will I be in the study? How many people will be in the study?

About 1000 patients, worldwide, will be included in this study. Your participation in the study may last about 3 years and potentially up to 5 years. The overall study is expected to last a total of 5 years from when the first patient is enrolled to when the last patient ends participation and may be extended to 7 year.

What are my responsibilities during the study?

Being in this study, it is important that you:

- Tell the study doctor about your medical and medication history;
- · Attend all visits scheduled with the study doctor;
- Call the study doctor's office to reschedule a missed visit as soon as possible;
- Report any injuries, hospitalizations, emergency room visits, symptoms or complaints to the study doctor or nurse as soon as possible.

What will happen if I am in this study?

Study Procedures:

If you decide to be in this study, you first will have to sign this patient informed consent form. The study doctor and study nurse will collect information about you and your medical history. This includes medication you currently take and any other information in your medical records related to your condition or treatment that may be relevant for the study.

For this study, you will be seen at baseline (starting point), the day of your implant, prior to your discharge form the hospital and for follow-up visits at one month and after 1, 2, 3 years and potentially up to 5 years after the implant. Your study doctor will schedule these visits with you. You have to make sure that you can come to each visit as scheduled.

Baseline visit

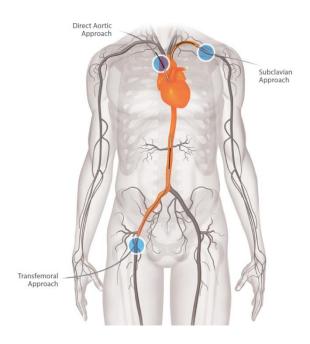
Before the Evolut R™ valve is implanted, you will undergo a standard suite of medical exams to collect information about your medical history and determine your eligibility. The following data will be collected in the clinical study:

- Information in your medical records related to your condition or treatment may be used in this study; including medication use and laboratory values.
- Information from your baseline Multi-Slice Computed Tomography (MSCT) scan: an exam that uses X-ray to evaluate the anatomy of your heart and arteries.
- A transthoracic echocardiogram (TTE): an exam that uses sound waves to take pictures
 of your heart and measure the degree of narrowing of your aortic valve; a probe is placed
 on the outside of your chest;
- An electrocardiogram (ECG): an exam that records electrical impulses of your heart;
 patches are placed on the outside of your chest;
- A physical and neurological (brain) exam where you will be asked to answer a series of questions. This exam will take approximately 15 minutes.

If your doctor decides you are a good candidate for the study, you will undergo the Evolut R valve implantation procedure. However, after reviewing your test results your study doctor may decide that you are not suitable for the study and/or that it is not possible to implant the Evolut R^{TM} valve and your participation in the study will end.

Implant visit

To implant the Evolut R^{TM} valve a small incision is made and a thin, flexible tube (catheter) holding the Evolut R^{TM} valve is guided to the heart. The valve will be placed within the aortic valve. Depending on your vessel anatomy, your doctor will determine if the catheter should enter your body via the artery in your leg (femoral artery), the artery close to your shoulder (subclavian artery), or through a small opening that is made between yours ribs or in your sternum (direct aortic approach). See the illustration below for these different access routes.



During the procedure, your doctor will perform angiography (x-ray pictures) to guide the positioning and placement of the Evolut R[™] valve and monitor the pressure within your heart to observe your heart function. The intervention does not require support of a heart-lung bypass machine. Your doctor can decide to perform the implantation under general or local anesthesia.

If during your planned surgery the doctor decides not to attempt to implant the study valve and that you are treated a different way, you will be exited from the study and you will continue to receive routine medical care.

If the study doctor attempted but was unable to implant the study valve, you will be exited from the study 30 days after your attempted implant. Afterwards you will continue to receive routine medical care.

Pre-hospital discharge visit

After your procedure, your study doctors will continue to monitor your progress and recuperation. Before you are discharged from the hospital, the following data will be collected for the study:

- Information in your medical records related to your procedure;
- Information in your medical records from your physical and neurological (brain) examination and general health status;
- A transthoracic echocardiogram (TTE): an exam that uses sound waves to take pictures
 of your heart and measure the degree of narrowing of your aortic valve; a probe is placed
 on the outside of your chest;
- An electrocardiogram (ECG): an exam that records electrical impulses of your heart;
 patches are placed on the outside of your chest;

Follow-up visits (at one month and 1, 2, 3 and potentially up to 5 years after the implant procedure)

The follow-up visits are routine care visits taking place after the implant procedure. Your study doctor will schedule these follow-up visits with you; please ensure that you can come to each visit as scheduled.

The following data from your follow-up visit will be collected for the study:

- Information from your medical records, including information from the physical examination, determination of neurological (brain) exam and general health status
- Transthoracic echocardiogram (TTE): a test that uses sound waves to take pictures of your heart and measure the degree of narrowing of your aortic valve; a probe is placed on the outside of your chest; (at the 1 year visit only)
- An electrocardiogram (ECG): a test that records electrical impulses of your heart;
 patches are placed on the outside of your chest;

If you have any symptoms or are seen by any other doctors or are hospitalized during your participation in this study, you should notify your study doctor.

If the Evolut R[™] valve is removed for any reason, Medtronic would like to receive the valve from your physician for additional analysis. After the Evolut R[™] valve is removed you will be exited from the study and you will continue to receive routine medical care.

[Optional]

Data Collection Requirements

	Baseline	Implant	Discharge	30 Days	1 Year	2 & 3 Years
Demographics	X					

and medical history						
Physical examination	Х		X	Х	Х	X
Relevant medications	Х		Х	Х	Х	Х
MSCT	Х					
Transthoracic echocardiogram (TTE)	Х		х		Х	
12-lead ECG	Х		Х	Х	Х	Х
Operative information		Х				
Neurological examination	X		X	Х	Х	X

What are the possible risks, side-effects and inconveniences?

[Use for study enrollment pre-implant/intervention when the implant procedure/intervention is per standard of medical care:] You will receive a separate surgical consent form from your study doctor explaining the implant procedure and the risks of having the implant procedure and the CoreValve™ Evolut R™ system implanted.

[Use for geographies where the system is approved:]

The CoreValve™ Evolut R™ system you will receive is not investigational. All the risks of getting the device are the same whether you are in the study or not.

[For Canada from IFU]

The risks related to the implant of the CoreValve™ Evolut R™ system and having the system implanted are:

[For Australia from IB]

The risks related to the implant of the CoreValve™ Evolut R™ system and having the system implanted are:

There may be additional risks related to this study that are not yet known.

What are the possible benefits of the study?

If you agree to be in this study, you will not have any direct medical benefits.

The information from this study may benefit other patients with aortic stenosis in the future.

What happens when I end being in the study?

After your participation in the study ends, you will continue to receive the standard medical care for your condition.

What other treatment choices do I have if I am not in the study?

[post-market geographies] You do not have to be in this study to be treated for a ortic stenosis or to get treated with the CoreValve $^{\text{TM}}$ Evolut R^{TM} system.

All of the treatment done for this study is as performed according to medical care standards and there is no additional treatment being done just for this study.

[pre-market geographies] You do not have to be in this study to be treated for aortic stenosis. If you decide not to be in this study, there is other care available to you. You will be treated in other ways, for example, with a publically available device and/or, with another surgical procedure. You may choose no treatment at all. You should discuss other treatments and their possible risks and benefits with your doctor.

Who is paying for this study?

Being in this study may contribute to the development of commercial products from which Medtronic may receive economic benefit. The study site will receive payment from Medtronic for work involved in collecting study data and managing the study at the site [and for procedures done solely for the study].

Will I be paid for being in this study?

You will not be paid for being in this study (including follow up), nor will you be reimbursed for any costs associated with your participation, such as travel expenses.

What will I have to pay for if I am in this study?

Testing and services done only for the study will be provided at no cost to you. All costs that are part of your usual medical care that would have been provided if you were not in the study and will be covered by your medical insurance [or adapt as appropriate for your study/region].

What happens if I am injured or hurt during this study?

[Use for geographies where Medtronic is reimbursing the site for costs of treating injuries] In the event of physical injury or physical illness resulting from your participation in this study, any immediate medical treatment you need will be provided.

The study sponsor has agreed to pay back the study site for the costs of medical or surgical care it provides for any illness or injury related to your participation in the study, if the treatment is not already covered by your medical insurance.

The study doctors, the hospital, and the study sponsor will not routinely pay you for any injury, or for any additional expenses that you may have because of this study. By agreeing to this, you do not give up any of your legal rights. You do not release the study sponsor, study doctors, or the hospital from responsibility for their negligence.

[Use for geographies where Medtronic is not reimbursing the site for costs of treating injuries but the national healthcare will cover] In the event of physical injury or physical illness resulting from your part in this study, any immediate medical treatment you need will be provided. Your healthcare coverage should cover the costs of medical care and treatment.

[Use when US and/or Canada are involved in the study and for studies where Medtronic is reimbursing the site for costs of treating injuries]

By agreeing to this, you do not give up any of your legal rights. You do not release the study sponsor, study doctors, or the hospital from responsibility for their negligence.

[Use for geographies where the device is market approved and has a warranty] Your Medtronic device comes with a warranty. If the device does not work the way it should, the warranty will apply.

Do I have the right to refuse to be in this study or to leave this study?

Being in this study is voluntary. You may choose not to be in the study or to leave the study at any time for any reason. If you choose not to be in the study or to leave the study, this will not result in any penalty and you will not lose any benefits to which you are entitled. Your regular care and your relationship with the hospital or clinic and your doctors will not be affected.

You will be told about any new information that may make you change your mind about staying in the study. You may be asked to sign a new consent form if this occurs.

You may leave the study simply by telling the study doctor. There are no specific tests that are required prior to leaving the study. You may be asked to come in for a final device check or visit.

The study doctors may take you out of the study without your permission if:

- It is in your best medical interest.
- You do not follow your study doctor's instructions.
- The study sponsor or regulatory authority stops the study.

If this happens you will be notified about being removed from the study and you will be provided with an explanation about such decision.

[Use for countries outside Europe:]

All of your health data already collected for the study cannot be removed from the study data and will continue to be used as described in this form even after your participation in the study has ended.

[Use for countries in Europe:]

All of your health data already collected for the study can still be used by the study sponsor unless you object and ask for deletion of the data.

What is the role of the sponsor's representative?

Trained Medtronic personnel may be present at the implant procedure. The role of the Medtronic person is to give technical support relative to the use of the Evolut R system. All of these actions will be done under the careful direction of your study doctor.

How will the sponsor use the study information?

Your participation in this study is entirely confidential.

If you are in this study, the following data will be collected by the study team:

- identifying data (name, age, ethnic origins)
- medical and health data from your medical records (hereinafter called "personal data")

Your personal data will be processed at all times in accordance with applicable legal requirements.

In general only the study doctor and/or nurse as well as the study monitor who acts on behalf of Medtronic have direct access to your personal data in your patient file. Furthermore it may happen, that members of the ethical committee and representatives of national, European or other international public authorities are granted direct access to your personal data in order to comply with legal requirements.

If necessary due to local laws, your personal data may also be transferred to public authorities, which are located in your country, in a member state of the European Economic Area but maybe also in a country where the European Directive on Data Protection does not apply.

For conducting the study your personal data will be transferred to and processed by Medtronic (meaning the Medtronic Bakken Research Center BV as well as all affiliates of this group of companies) or a third party designated by Medtronic - **but solely in a key coded form** -. This means that your data will be transferred to Medtronic or a third party designated by Medtronic which is located in your country, in a member state of the European Economic Area but maybe

also in the United States or another country where the European Directive on Data Protection does not apply.

Medtronic may also use your personal data for additional purposes such as overseeing and improving the performance of its device, new medical research, developing new medical products or procedures, and other business purposes.

You are entitled to access the personal data collected about you and to have inaccuracies corrected.

Any published information including reports and articles about the study will not include your name or any information that could personally identify you. Information received during the study will not be used to market to you; your name will not be placed on any mailing lists or sold to anyone for marketing purposes.

You may change your mind and take back this permission to continue collecting your personal data at any time. To take back this permission, you will need to write to [insert name and contact information]. However, if you take back this permission, you will no longer be a participant in the study. All of your personal data that was already collected will still be used. [Add this for Europe: ,unless you object and ask for deletion of the data.]

[Use for outside Europe:]

Even after your participation in the study ends, your health information cannot be removed from the study data and Authorized Personnel may continue to use and disclose the personal data they obtained during the study as described in this consent form.

Where can I find out about the study results?

A description of this study will be available on http://www.ClinicalTrials.gov, his website will not include information that can identify you. At most, the website will include a summary of the results. You can consult the general outcome and results of this study after they have been made publicly available by consulting this website.

Who can I call with questions, complaints or if I'm concerned about my rights as a participant?

If you have any questions about the research or being in this study or you think you have a research-related injury, you should contact [insert name] at [insert telephone number].

If you have any questions about your rights as a participant you should contact [insert name] at [insert telephone number].

Who has reviewed the study?

This study was reviewed and approved by the [insert name of committee] Research Ethics Committee.

PATIENT INFORMED CONSENT FORM SIGNATURE SHEET

I have read the patient information for this study and my study doctor has answered all my questions regarding the study.

I had sufficient time to consider my participation in this study, I am aware that participation into this study is completely voluntary, and I agree to follow the instructions from the study doctor.

I realize that I may decide to refuse participation or stop participation at any time without penalty and without affecting the quality of my health care or the relationship with my study doctor.

I understand and agree that personal information about me will be collected from my medical records, used and processed (manually and by computer) by the manufacturer of a medical device used in my treatment or any other designated party that is involved in the study (e.g. hospital, study doctor, regulatory authorities, ethics committees).

I understand and agree that representatives from Medtronic, regulatory authorities and the Ethics Committee will be granted direct access to my medical records.

I understand and agree that the study doctor(s)/hospital will release the relevant personal information about me for the purpose of the study.

I understand that I am entitled to access the personal information collected about me and to have inaccuracies corrected.

I agree to voluntarily be in and comply with this study.

I understand that I will receive a dated and signed copy of the patient informed consent form.

- ✓ This notification can be deleted for countries where personal physicians do not exist
- √ Use if EC requires a checkbox

	se, check one option below indicate I agree that my personal p	ersonal physician is informed on your pating your choice: ! must be checked by patient ohysician is informed about my participal physician physician is informed about my participal physician physician is informed about my participal physician physici	ation in this study.
Pat	Name	Signature ! must be written by patient	Date (dd MMM yyyy) ! must be written by patient

	Study doctor or designated person by study doctor: I have conducted the informed consent discussion.				
Name	Signature	Date (dd MMM yyyy)			
any other written information was accu	I have attended the entire informed consent discussion. I attest that the information in the consent form and any other written information was accurately explained to, and apparently understood by, the. Informed consent was freely given by the patient.				
Name	Signature ! must be written by Impartial Witness	Date (dd MMM yyyy) ! must be written by Impartial Witness			