PATIENT INFORMATION SHEET

Title of the study: "**I**ndividualized **P**eriope**R**ative **O**pen lung **VE**ntilatory approach in **E**mergency **A**bdominal **L**aparo-tomy/scopy. A prospective multicenter randomized controlled trial"

Clinicaltrials.gov identificator: NCT04229810
Ethical Research Committee identificator: HCB/2020/0030
Version de protocol: PEAL + IPROVE-EAL. Versión 04.0 data: april-2020
Sponsor: Department of Anesthesia and Critical Care. Hospital Clinic de Barcelona. C/Villaroel, 170. Esc 4. Planta 3. UCI.Q. Teléfono: 932275400
Principal Investigator: Carlos Ferrando Ortolá. Jefe sección UCI Quirúrgica.
Departamento deAnestesia y Reanimación. Hospital Clinic de Barcelona. C/Villaroel, 170.
Esc 4-planta 3. Teléfono: 932275400/2427.Número de Aprobación Comité de Ética:
(VERSIÓN 1.0, julio de 2019)
Hospital:
Local Principal Investigator:
Que está siendo llevado a cabo por del Servicio de Anestesiología y Reanimación y que ya ha sido evaluado y aprobado por el Comité de Ética del

Dear Patient:
You have been invited to participate in a research study. This consent document contains information that will help you decide if you want to participate. Take your time, read this consent document carefully and ask the doctor or study staff any questions you want. Do not sign this document until you understand all the information presented in the following pages and all your questions about the study have been answered satisfactorily. The study has been evaluated and approved by the Clinical Research Ethics Committee of the Hospital Clinic de Barcelona.

Background:
It is now known from various studies that mechanical ventilation, usually used in patients undergoing general anesthesia to perform a surgical intervention, can itself produce postoperative pulmonary complications in patients with healthy lungs, which worsen the patient's evolution and prognosis.

The causes that justify the appearance of these complications seem to be mainly related to the way the intraoperative mechanical ventilation is applied. In fact, different adjustments and ventilatory strategies such as recruitment maneuvers (strategies to maintain the full volume of the lung), the adjustment of positive pressure at the end of expiration and the maintenance of a certain level of pressure in the airway during the postoperative, have been shown to reduce the incidence of pulmonary and extrapulmonary complications and even mortality.
However, despite knowing their advantages, these strategies are not widely used in routine clinical practice. The reality is that there is a great variability between different doctors and hospitals, in terms of how the adjustment of mechanical ventilation is performed in patients

undergoing surgery, and also there are variations in the respiratory management that the patient receives after completing the intervention.
One possible reason for this lack of homogeneity when applying mechanical ventilation is that until now no clinical study has been done to determine which is the best fit and its correlation with the final outcome of the patients. For this reason, the present study is proposed to obtain the basis to influence the improvement of mechanical ventilation adjustment in the daily clinical practice of the surgical patient during anesthesia and the postoperative period.

What is the purpose of this study?
The objective of the iPROVE-EAL study is to determine whether a customized adjustment of mechanical ventilation for each patient during anesthesia versus a standard ventilatory management (equal for all patients), significantly decreases the occurrence of pulmonary and systemic complications during the first 30 days after surgery, readmissions not scheduled in the intensive care unit, hospital stay as well as in-hospital mortality.

Why have you been asked to participate?
You have been asked to participate in this scientific research study, because you will undergo an emergency laparotomy surgery under general anesthesia and artificial ventilation, and when you leave the operating room it is expected to stay a few hours in the Post-Anesthesia Recovery Unit (PACU). In this study, 732 patients from different hospitals around the world will be included. Because it is not known which of the different adjustments of mechanical ventilation is the best to reduce postoperative pulmonary and systemic complications, it will be assigned randomly (as if we were tossing a coin) to participate in one of the two study groups. Therefore, you have a 50% chance of receiving any of the adjustments.

What does your participation consist of? What type of tests or procedures will be performed?
The start of participation in the study is the day of your surgery. Before starting the study, your personal medical and surgical history and your clinical situation will be reviewed to determine if you meet the criteria to participate in the study. If you meet the criteria and decide to participate, you will be randomly entered into one of the two possible treatment groups:
Group 1: Standard intraoperative and postoperative ventilatory adjustment (the most commonly used for all patients).
Group 2: Customized intraoperative and postoperative ventilatory adjustment.
During the duration of general anesthesia and during admission to the Post-Anesthesia Recovery Unit, data related to the intervention itself and to the manner in which the ventilator settings are scheduled during anesthesia will be collected. Respiratory and circulatory function data will also be recorded by various monitors usually used for this purpose, and by means of the analysis of arterial blood samples.
We will also assess the occurrence of complications of any kind during the 7 days following the intervention, and 30 days after surgery we will be interested to know if you have had any type of complication, if you are still in the hospital or if you have already received the high to your house.

It is possible that other complementary tests could be performed during the study, if indicated (blood test, chest x-ray, electrocardiogram ...). None of these tests is going to be a risk to you. All these determinations will be made by the investigating doctor or the person of the team designated by him.

It is important that you know that your participation in the study does not imply alteration of the treatment you are taking (if you have it) and any treatment that can be done from the clinical-biochemical studies that are performed will always be under medical criteria.

What are the general risks of participating in this study?

No risk is anticipated other than usual during any general anesthesia in which open lung maneuvers are applied. The most frequent complication when these maneuvers are applied is a transitory and controlled drop in blood pressure that is treated either by increasing the speed of the liquids administered by the dropper, or with specific medications.

What are the benefits of participating in this study?

Based on previous knowledge and observations it seems that the application of mechanical ventilation in a personalized way can reduce the appearance of postoperative complications, however, we cannot guarantee that you will obtain direct clinical benefits for your participation in the study, since that is precisely what we want to find out. In any case, your participation will help to better understand the outcome of different ventilation strategies and thus improve the prognosis and treatment of future patients.

What will happen if I decide not to participate in this study?

Your participation in this study is totally voluntary. If you decide not to participate in the study, this will not change the treatment and monitoring of your disease done by your doctor or the rest of the caregivers who take care of your illness. Likewise, you may withdraw from the study at any time, without having to give explanations.

Alternative clinical management

The alternative to enter this study is to receive mechanical ventilation with the usual adjustment that may or may not include the maneuvers proposed in this study.

Who can I ask in case of doubt?

It is important that you discuss with any of the investigators of this project the details or doubts that arise before signing the consent for your participation.

Likewise, you can request any explanation that you wish about any aspect of the study and its implications throughout the same by contacting the principal researcher of the center.

Confidentiality:

The data obtained from your participation in the study will be treated according to the national regulation on data protection (Organic Law 15/1999 on the protection of personal data). Your data will be incorporated into a computerized database so that the information obtained cannot be associated with an identified or identifiable person. Equally, in the

publication of the results, there won't be any moment in which personal data of patients who have collaborated in this investigation will be leaked.
No data will be accessible to any person who is not part of the team of this study except that the information collected could be reviewed by professionals dependent on the Health Authorities, members of the Clinical Research Ethics Committee, monitor of the study, and other persons designated by the Law to verify that the study is being carried out correctly.
As contemplated by the Law on Protection of Personal Data, you can exercise your right to access, rectify, cancel or oppose your data by contacting the principal investigator of this study.

Other relevant information

During your participation in this study, blood samples will be taken from an arterial catheter during the surgical procedure and in the period after the intervention. Part of the blood sample will be analyzed immediately after its extraction and another part will be stored together for its later analysis once the study is finished. What may remain will be eliminated immediately. This sample will always be used for scientific purposes.

Risk for confidentiality

The clinical information obtained in this project will be stored in a database protected by current legislation, under the responsibility of the responsible institutions' investigators. These anonymized data will be kept for future studies, unless you indicate otherwise. The results of this research can be disseminated in journals, medical databases and scientific forums. Personal data that could identify you will never be revealed. The investigators will always have a duty to protect your privacy and maintain all your information confidentially.

Privacy and use of clinical information

The treatment, communication and transfer of your data will be performed according the Regulation (EU) 2016/679 of the European Parliament and the April 27th 2016 Council on Data protection (RGPD). The principal investigator, Dr Carlos Ferrando will be accountable for the custody of the participants' identification codes. As a participant, you may exercise your rights of access, rectification, objection and/or deletion, by contacting any of the principal investigator (telephone number provided at the end of this document). Moreover, you can restrict processing of incorrect data, request a copy of your data or request the transfer of your data to a third party (portability). You may exercise your rights by contacting the principal investigators of the study [Carlos Ferrando (cafeoranestesia@gmail.com)]. We remind you that data cannot be delated even though you cease to take part in the study, in order to guarantee the study's validity and to comply with the legal and medicinal products requirements for authorization. You are entitled to contact the Data Protection Agency if not satisfied. Both the Centre and the Promoter are responsible for data treatment and they commit to meet the data protection regulations in force. Data collected for the study will be identified with a code, so that no information that could identify you is not included. Only your doctor and collaborators will be able to relate your data with you and your clinical history. Therefore, your identity will not be revealed to anyone, except for the healthcare authorities whenever required or in cases of medical emergency. Ethical Committees, healthcare authorities' representatives and authorized

personnel will only have access to data in order to perform checks on personal data, on the study procedures and on the compliance with the Good Clinical Practice Standards (always maintaining confidentiality).
The principal investigator and the promoter are obliged to keep all the data collected throughout the study for at least 25 years after the end of the study. After that, your personal data will only be stored at your hospital for your health care. In case we transfer your encoded data outside the EU, to scientific researchers or service providers that collaborate with us, your data will be safeguarded by contracts or other mechanisms recommended by data protection authorities. Further information can be obtained by contacting the Data Protection Delegate (Carlos Ferrando Ortolá, cafeoranestesia@gmail.com).

Withdrawal from the study
Even though you have agreed to participate, you may leave the study whenever you wish without any effect on your medical care and without having to offer any explanation. All you need to do is express your intention to the study's principal investigator or his collaborators. If you decide to withdraw from the study, no further data will be collected, while already collected data will be filed.

How can I know the results of the study?
You have the right to know the results of this study, both the general results and those derived from your specific data. You also have the right not to know these results if you wish. For this reason, in the informed consent document, we will ask you which option you prefer. In case you want to know the results, the researcher will send you the results. The overall results of this study will be sent to medical and scientific publications and presented at meetings in the same field for dissemination. The iPROVE-EAL (www.iprove-network.es) website will also provide study data and updated recruitment information, both for patients and for the general public.

What if I have any questions during my participation in the?
In case you have any question or doubt regarding your participation, you can contact the principal investigator at Hospital Clínic de Barcelona (Carlos Ferrando, Chief of the surgical ICU), during working hours (08:000-16:00) or by email to the aforementioned addresses.

Who is organizing and funding this research?
This study is being carried out by a network of doctors from all over the world. The study is coordinated by Dr. Carlos Ferrando. The study is not funded.

Are there economic interests in this study?
Researchers will not receive specific retribution for the dedication to the study (in addition to their usual salary as researchers or doctors). You will not be rewarded for participating. There is no possibility of this study generating benefits in the form of patents.

Who has reviewed this study?
This research study has been reviewed by an independent group of people from a Research

Ethics Committee, to protect your safety, your rights, your well-being and your dignity. The Healthcare Ethics Committee of the Hospital Clínic de Barcelona has reviewed the study and has given the approval to carry it out.

What am I supposed to do now?

You must decide if you want to participate in this study. Please, think about what participating in the study involves and talk with your friends and family. The research doctor and the nurse will be happy to answer any questions you may have. When you decide, please inform your doctor. You will be asked to sign a consent form and you will be given a copy that you must keep attached to this information sheet. Please keep these documents. If at any time you have any questions about the study, you can contact the researchers of the iPROVE-EAL study, whose contact information is indicated at the end.