Dear Patient,

Lung transplantation is a surgical procedure performed in patients with severe irreversible end-stage lung damage, who have exhausted all other available treatments without improvement, which means that there is no possibility for effective treatment with cardiac or thoracic surgery, and pharmacological treatment does not prevent the disease progression. Pre-transplant patient evaluation includes the pulmonary function assessment, objectively evaluating lung physical condition. Lung transplantation is offered to those patients whose expected survival without a transplant procedure is less than 50% within 2 years. A patient with an end-stage pulmonary disease which is a direct life threat, who might not survive the next few days or weeks, and who is meeting criteria reflecting a more urgent status, is listed for an urgent lung transplant.

There are three types of lung transplant procedures:
1. a single lung transplant
2. a double lung transplant
3. a heart-lung transplant

There are several elements that decide on the type of surgery: a transplant surgeon, a transplant evaluation team, physical condition of the donor’s organs, the recipient’s constitution, and the recipient’s underlying disease. If the patient meets any of the contradictions during the evaluation process, they cannot be offered a transplantation surgery. Transplant surgery is offered to patients who do not meet any of the major exclusion criteria during the pre-transplant assessment. They also must have some tests done in order to evaluate if the organ donor and recipient blood types are compatible.
The recipient is placed on the National Waiting List, a database run by a Polish Transplant Coordinating Center POLTRANSPLANT in Warsaw which coordinates, supervises and runs the registry of all cells, tissue and organ transplantation procedures in Poland.

Bronchial tubes and blood vessels are reattached.

The experienced team of specialists, staying in close and constant contact with the transplant surgeon, is delegated by the transplant center to perform a detailed assessment of the lungs in the potential donor with regard to lungs efficiency and suitability for implantation to the particular recipient. Lungs are retrieved only if the suitable recipient had been prepared for the surgery in the transplant centre. The whole operation is carefully coordinated so that the time during which the retrieved lungs are kept outside of the donor or the recipient body is the shortest possible. Lung retrieval procedure is not possible if there are any noticeable signs of infection or cancer in the organ donor (excluding isolated brain tumors). In spite of the careful and meticulous assessment, the risk of transferring an infection or cancer from donor to recipient cannot be excluded, even if they had not been identified before or during the retrieval procedure. The orthotopic lung transplantation operation is performed under the general anaesthesia, after the insertion of a flexible tube down the windpipe (intubation) and opening the chest with an incision seven inches long just below the nipple or on the side of chest where the lung will be replaced. The procedure is performed either without or, in some particular cases, when required, with the use of extracorporeal circulation (a heart-lung machine, that temporarily replaces the functionality of the heart and lungs).
The example of minimally invasive incision in a patient after lung transplantation procedure – 3rd day after the surgery.

In the early post-operative period both the patient and the lung/lungs require a strict regimen involving taking fluids and medications needed for raising blood pressure, injected intravenously.

The term “orthotopic transplantation” means that the donor lungs are placed in the same anatomic location of the removed lungs. Immediately following the surgery, the patient is placed in the intensive care unit, where after regaining the consciousness and checking the efficiency of the lungs, the ventilation tube is removed, and in the following days, the doses of medications supporting the blood circulation system are reduced. In the early post-operative period some tubes stay connected to the patient’s chest to drain any fluid build-up that could be harmful for the lungs, and a tube known as a urinary catheter stays inserted into the patient's bladder. Usually patients require constant vascular access - venous and arterial.

Until the implanted lung takes on a self-cleaning function, the patient needs a number of bronchoscopy procedures (patient information and consent form for bronchoscopy is attached to this document).

This is the time when the patient starts the immunosuppressive therapy which suppress the transplant recipient’s immune system response which considers the implanted organ as foreign tissue and attacks its cells. Immunosuppressants prevent the organ damage and transplant rejection caused by the immune system and therefore the patient must take them for the rest of their life. In the early post-operative period the quantity and the doses of these medications are much higher than in the years following the transplantation. Immunosuppressive therapy is a prerequisite of a long-term efficiency of the transplanted lung. The medications require exact timing of precise doses, strictly as advised by the doctor. The doses may be changed depending on the blood test results and the patient’s clinical condition. The patient with a weakened immune system is more prone to various infections or cancer,
which though, due to frequent follow-up clinic visits in transplant center, can be identified in their early stage.

Unfortunately, immunosuppressants may also cause side-effects of which most common is kidney-failure development. These side effects and complications may be prevented through a close cooperation with the transplant center and by strictly following doctor’s instructions.

Despite the immunosuppressive regimen there is still a risk of transplant rejection development, which is the highest in the early post-transplant period, and thus the patient must stay in a close contact with transplant center. This is also the time when numerous tests and examinations are performed to detect organ rejection early. The most important test is a routine transbronchial lung biopsy (performed during the bronchoscopy), a procedure during which a small piece of lung tissue is removed for laboratory examination. Despite the significant progress in the field of lung transplantation, the risk of failure in the early post-transplant period is much higher (20-30%) than in case of other cardiac surgeries such as heart transplantation, coronary artery bypass grafting, or implantation of prosthetic heart valves. This risk rises up to 40% in patients with a life-threatening disease, listed for the urgent lung transplant procedure. This is the situation, though, when a transplantation surgery is the only chance to save the patient’s life. The late post-transplant results show that nearly 30% of patients live at least 10 years after the transplantation.

Till now, our Center has performed 118 procedures of lung/heart and lung transplantation, and the longest survivals reach 8 years after the procedure.
PATIENT CONSENT

I hereby declare that dr……………………………………………………………………………………

informed me of my lab-tests’ results, the condition of my health, the nature and purpose of the
proposed surgical treatment, and the necessity to perform it.

I understand that my condition requires surgical treatment and that it is necessary that I give my
consent to perform it. I received all the necessary information (in writing and spoken) regarding
the surgical procedure, possible complications and associated risks. I understand the benefits
resulting from performing the procedure as well as the possible consequences of not having the
procedure. I got acquainted with the EuroSCORE risk scale and acknowledged the risk of
developing adverse events associated with the surgical procedure. I got the opportunity to ask
questions and received the answers to all of them. I understand that I may refuse undergoing
surgical procedure, and such decision does not end my further treatment.

Therefore, I give my full informed consent for the recommended surgical treatment. I also
understand that during the course of the procedure unforeseen conditions may be revealed
requiring the performance of additional procedures and I authorize such procedures to be
performed.

This patient consent form will become a permanent part of the patient’s medical record.

.............................................................................................................................................

(signature of patient and/or legal guardian) ...........................................................................

.............................................................................................................................................

(signature and stamp of a physician)

Zabrze, (date)..............................................