Lung Transplant

Lung transplantation is a well-established surgical procedure for some individuals with end stage lung disease, including cystic fibrosis (CF). First performed in Australia in 1990; today more than 150 procedures are performed annually. Australia's lung transplant program is highly regarded and has an extremely good survival rate; 70% of those transplanted will live for more than 5 years. There are 4 centres for lung transplantation in Australia:

- The Alfred Hospital, Melbourne, VIC;
- St Vincent's Hospital, Sydney, NSW;
- The Prince Charles Hospital, Brisbane, QLD and
- Fiona Stanley Hospital, Perth, WA.

The Paediatric Lung Transplant Program at the Alfred Hospital is the only paediatric service in Australia.

People who have had successful lung transplants report being able to breath more easily and undertake physical challenges. Lung transplantation does have some risks and not all transplants are successful. It is important to weigh the benefits against the risks and complications of having a transplant, and it is a personal and difficult decision. You are encouraged to have an honest discussion about what your expectations are with your CF team, and it is strongly advised to meet with the transplant team.

Evaluation for Transplant

Some people do not wish to go through the process of being considered for a lung transplant and wish to live their lives without intervention. It is OK to choose this path. If you decide to go through the transplant assessment to see if it is the best option for you, you will have many tests done, some of which include; lung, heart and kidney function, bone scan, bloods and an exercise test. These tests should ideally be performed prior to your condition deteriorating to the point where transplantation is required. Unfortunately, there is no guarantee that transplant will be found to be the best treatment option for you by the transplant team. If this is the case the team will discuss treatment options with you.

Waiting

Once it is decided transplantation is the best option for you, you will be placed on the waiting list. The waiting time varies and

could be weeks, months or even more than a year. Finding an appropriate donor is not always easy, as blood type and size need to match, as well as having no antibodies present against the donor tissue. These tests are important to ensure that the new lungs function well and are not targeted by your immune system. While you remain on the waitlist you need to be living within 2 hours of the transplant centre and may be eligible for financial assistance to relocate from rural areas or interstate.

It is important to maintain your health, including your weight, while waiting and you will have appointments with your transplant team every 4–8 weeks, depending on your transplant centre. Some centres require patients to participate in an exercise program. You must attend all your appointments. Patient compliance is an important component in the commitment to the transplant process.

The waiting time can be very emotional and stressful for you and your family. You may want to talk with others who have gone through the experience. CFWA can refer you to people willing to share their experience.

The Transplant Operation

Individuals with CF will have both lungs transplanted; this is known as a bilateral lung transplant. The transplant is performed by an expert team and takes 4–10 hours depending on the difficulty of removing your lungs and inserting the new ones. You will wake up in intensive care and be on a ventilator, have chest drains, an epidural and a number of IV lines in. Once you are breathing on your own, and doctors are happy with your progress, you will be transferred to a ward. Most people are in hospital for approximately 3 weeks after the operation.

Post-Transplant Care

After the operation, you will need to take immunosuppressive medications for life to prevent the body from rejecting the organs. It is important that you develop a routine for taking your medications at the correct time and dosage, as failing to take medications is a common cause of transplant failure. You will also be on other medications and antibiotics to prevent and control the common infections that transplant patients are susceptible to. To identify problems early you will be asked to measure your FEV_1 daily at home.

After transplant, many people enjoy a vast improvement in quality of life and enjoy activities they could previously not have done.

Lung transplantation is a risky procedure and it is possible you may experience some complications. It is important to do your daily lung function tests so infection or rejection can be identified and treated early. You still have CF everywhere except your lungs and you will need to continue required treatments because you will still be at risk of CF-related complications in these organs.

How Can Others Help?

Lung transplant is a treatment and not a cure for CF, but it can save lives. Those who need a lung transplant are usually very ill because their lungs are failing. A shortage of suitable donors is an issue that delays lung transplantation. A simple way people can help is by registering with the national donor service.

Useful Resources

- CFWA Transplant Services Brochure www.cfwa.org.au/wp-content/uploads/2018/06/CFWA-Transplant-Services.pdf
- Positive Profiles: 15 Inspirational Transplant Stories www.cfwa.org.au/wp-content/uploads/2018/03/Positive-Profiles-Low.pdf
- Lung transplant recipient interviews by Cystic Fibrosis South Australia www.youtu.be/FQFQn8QXK18
- Donate Life www.donatelife.gov.au/decide
- Heart and Lung Transplant Foundation www.heartlungtransplantfoundation.org.au

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