Pulmonary Hypertension

1.0 WHAT IS IT?

Pulmonary hypertension refers to an increase in the blood pressure in the lungs. There are many causes for pulmonary hypertension including: heart disease, lung disease, blood clots, collagen vascular disease, liver disease, HIV infection, and drugs or toxins. Sometimes a cause cannot be identified, and this is called "idiopathic pulmonary hypertension". The condition of pulmonary hypertension related to an underlying heart defect is called "Eisenmenger syndrome" and is discussed elsewhere. (see Eisenmenger Syndrome).

2.0 HOW SAFE IS IT FOR ME TO BECOME PREGNANT?

There is a very high risk of complications for you and your unborn baby. Pregnancy is not advised if you have significant pulmonary hypertension.

Because of the high-risk nature of pregnancy for women with pulmonary hypertension, it is important to discuss your specific condition with a physician who has expertise in the care of women with pulmonary hypertension. Pregnancy is ideally a planned event in people with pulmonary hypertension. Some women with high-risk conditions seek alternatives to pregnancy, including adoption.

3.0 ISSUES FOR THE MOTHER

3.1 What makes pregnancy so high risk in people with pulmonary hypertension?

Recent studies identified that there is a risk of death during pregnancy in people with pulmonary arterial hypertension, with up to 21% not surviving the pregnancy[1].

3.2 What symptoms might occur or change during pregnancy?

People with pulmonary hypertension may experience worsening shortness of breath, lower energy levels, or fluid retention with pregnancy due to worsening heart function. These symptoms are often treated with diuretics and medications to help the heart function. In some cases, they may require admission to hospital for treatment.

They may also experience blood clots in the legs or in the lungs, which are treated with blood thinners. People with pulmonary hypertension also have a chance of experiencing heart racing or palpitations due to abnormal heart rhythms. These symptoms can often be managed with medications to control the heart rate, which are safe for the unborn baby.

3.3 Are the medications for pulmonary hypertension safe during pregnancy?

Some medications used for pulmonary arterial hypertension are not safe during pregnancy. Medications should be reviewed by your doctor if you are planning to become pregnant or are pregnant. Do not stop medications without first talking to your doctor.

4.0 ISSSUES FOR THE BABY

There is a high chance the baby will be born early or will be born small. Babies born earlier have a high chance of serious health issues.

5.0 MEDICAL CARE DURING PREGNANCY AND DELIVERY

5.1 Where should I be followed?

You need to be followed at a center that specializes in high-risk pregnancies, such as a Cardio-Obstetrics program.

5.2 What can I do and expect during pregnancy?

You can expect frequent appointments at a Cardio-Obstetrics Program, where you will have heart ultrasounds (medical term: echocardiogram) to monitor your heart during the pregnancy. They may also check blood work throughout the pregnancy. You will meet with Cardiologists, Pulmonary Hypertension experts, and Maternal Fetal Medicine Specialists.

You need to be attentive to symptoms related to your heart. Notify your doctor if you develop any concerning symptoms such as shortness of breath, swelling of the legs or stomach, chest pain, coughing up blood, fast heart beats (palpitations) or fainting. If you develop complications you may be admitted to hospital for closer care and monitoring.

If your symptoms are concerning and you cannot get in touch with your doctor, go to your nearest emergency department. It is helpful to keep a letter from your doctor explaining your condition so that other health care professionals can better help you in an emergency situation.

Many women will be treated with special medications to lower the blood pressure in their lungs.
Some women will need to be admitted to the hospital for monitoring or medication adjustments during pregnancy.
Some women will need to have treatment for weakening of the heart muscle (medical term: heart failure).

Labour and delivery must be planned carefully with a team including a heart specialist, a pulmonary hypertension specialist, a high-risk obstetrician and an anesthetist. C-section is the most common type

of delivery in people with pulmonary hypertension. Vaginal delivery is considered in some situations. You will likely need heart and blood pressure monitoring during delivery.
You will likely need to stay in hospital for at least 3 days after delivery to monitor for changes that happen to the heart after delivery.

6.0 REFERENCES

1. Low TT, Guron N, Ducas R, et al. Pulmonary arterial hypertension in pregnancy—a systematic review of outcomes in the modern era. *Pulm Circ.SAGE Publications Ltd*. 2021;11(2). doi:10.1177/20458940211013671