Pulmonary Hypertension

For family, friends and caregivers of a patient with pulmonary hypertension in the Medical Surgical Intensive Care Unit (MSICU)

This brochure will give you more information about:

• The causes and symptoms of pulmonary hypertension
• How pulmonary hypertension is treated in the MSICU
• What you can do to help
How do the heart and lungs work together?

- The right side of the heart pumps blood through the lungs.
- The blood picks up oxygen.
- The blood then returns to the left side of the heart.
- The left side of the heart pumps the oxygen-rich blood to the whole body.
What is pulmonary hypertension?

• When the small arteries of the lungs become hard and narrow, the blood flow is reduced.

• When this happens, pressure builds up in the lungs and the heart needs to work harder to force the blood through the vessels against the pressure. This is called pulmonary hypertension.

• Over time, the extra workload causes the right side of the heart to become larger. This can lead to severe fatigue, shortness of breath, swelling of the legs and abdomen, and death.

Pulmonary hypertension is a serious condition. Although pulmonary hypertension cannot be cured, there are treatments that can help lessen symptoms and improve quality of life.
What are the signs and symptoms of pulmonary hypertension?

- Bluish lips, bluish skin or both
- Trouble breathing
- Feeling light headed
- Fainting spells
- Swelling in the ankles or legs
- Chest pain or pressure
- Coughing up blood or pink coloured sputum (mucus)

What can cause pulmonary hypertension?

- Heart problems of the heart at birth
- Genetic traits passed through family members
- Chronic blood clot in the lung called a pulmonary embolism
- Heart failure
- HIV infection
- Long-term low oxygen levels from smoking or living at high altitudes
- Sleep apnea
- Lung diseases such as chronic obstructive pulmonary disease (COPD), asthma, pulmonary fibrosis
- Liver disease
- Certain medications
- Connective tissue diseases
How is pulmonary hypertension treated in the MSICU?

Tests will be done before treatment begins such as:

- blood tests
- a breathing test called a lung function test
- imaging tests such as:
  - x-ray
  - CT scan
  - MRI
  - Ventilation/Perfusion (V/Q) scan
- a catheter placed in the heart that measures pressures in the heart and lungs (pulmonary-artery catheter)
- electrocardiogram (ECG) and echocardiogram to check the heart

Some medications that may be used to treat pulmonary hypertension include:

- oxygen therapy
- flolan and caripul – medications that dilate the blood vessels and decrease the workload of right side of the heart
- prescribed medications can be taken by mouth (oral), intravenous (IV) or inhaled
- diuretics to extra remove fluid
- blood thinners to decrease the risk of blood clots forming
Some of the treatments that may also be used to help during pulmonary hypertension are:

• reducing fluid intake
• physiotherapy
• pulmonary endarterectomy which is an operation where a surgeon opens the pulmonary arteries to remove an obstruction from a blood clot
• heart-lung machine

**What can I do to help?**

**Substitute Decision Maker**
It is important for one family member to act on behalf of their loved one as a Substitute Decision Maker (SDM). An SDM is usually the next of kin, unless the patient chooses someone else.

As an SDM, you are responsible for giving accurate and honest information about your loved one to the health care team. You also:

• Partner with the health care team to make sure you understand what is happening with your loved one.
• Work together with the team to decide about the care and treatment of your loved one.

Please look for the brochure “Substitute Decision Makers and Naming an Attorney for Personal Care” in the MSICU waiting room.

**Comfort and support**
Although sometimes patients in the MSICU are on sedating medication, they do still need emotional support. Talk to them like you would normally. Bring toiletries, familiar pictures, books and comforting items.
Visiting hours
Visiting hours are from 9:00 am to 11:00 pm every day, but we have a flexible visiting policy. Please talk to your nurse. Make sure only 2 people visit at a time. Please try to keep your visits short and remember to let others in to visit.

Consider limiting the number of visitors until your loved one is in stable condition.

Hand washing
You can help everyone stay safe by washing your hands often or using hand sanitizer during your visits to MSICU.

Please follow all isolation instructions or talk to your nurse if you are not sure what to do when visiting an isolation room.

Who can I talk to if I have questions?
Do not be afraid to ask questions. Ask any member of the health care team to repeat or say information in a different way.

You can talk with any of the medical staff caring for your loved one about any concerns you may have.

More information about pulmonary hypertension

Living with Pulmonary Hypertension
• Website: www.livingwithph.ca

Medline Plus – Pulmonary Hypertension
• Website: www.nlm.nih.gov/medlineplus/pulmonaryhypertension.html

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