
Oxygen Concentrators: Guidelines for Use

What flow rates to use?

Determining how many litres per minute (LPM) of oxygen to use for treating a patient should always depend on the patient's oxygen saturation levels. Oxygen saturation levels are typically measured by fingertip or tabletop pulse oximeters. The result is a measure of the oxygen levels in the blood called the SpO₂ levels.

Please remember we are not medical experts and while this report was written based on verified references, we cannot give any medical advice.

SpO₂: LPM flow rate

90-95: start at 2L

85-90: start at 4L

80-85: start at 6L

75-80: start at 8L

Continually check saturation levels to determine the LPM of oxygen a patient needs. If the patient's saturation is getting better, reduce the oxygen flow. If saturation levels decline, increase oxygen flow.

Above 92 keeps the patient out of the danger zone and the concentrator can be used for another patient.

What accessories to use?

- 1. Standard Cannula:** These are typically designed to be used on oxygen flow rates up to 6 LPM
- 2. High Flow Cannula:** These are typically designed to be used on oxygen flow rates up to 15 LPM
- 3. Simple Oxygen Mask:** These can be used for any flow rate and are commonly used in hospitals as the patient interface doesn't need to be changed if the flow rate needs to be increased quickly. The simple oxygen mask can be used up to 15 LPM.
- 4. Rebreather Mask:** These are typically meant for emergency situations where a patient's oxygen saturation level needs to be quickly increased. A partial rebreather mask allows for some of the exhaled air to be re-breathed with a two way valve. It can be dangerous to use by untrained technicians.
- 5. Non-rebreather Mask:** These are typically meant for emergency situations where a patient's oxygen saturation level needs to be quickly increased. This mask can deliver 60 - 80% oxygen with 10 to 15 LPM of oxygen. It can be dangerous to use by untrained technicians.

Reference:

<https://www.covid19treatmentguidelines.nih.gov/critical-care/oxygenation-and-ventilation/>