Essential equipment required during COVID-19

Use of oxygen cylinder

- Can be used for all oxygen needs, including high-pressure supply
- In facilities where the power supply is irregular or unreliable
- For ambulatory service or patient transport
- Backup for PSA plant/liquid oxygen

When installing an oxygen cylinder, remember the following:

01 Mandatory accessories required to operate oxygen cylinder are pressure regulator, pressure gauge, flowmeters and bull nose fittings with humidifier bottle.
02 Ensure the quality of the oxygen is assured, either by supplier quality certificate, PSA plant logbook or onsite analyser testing.
03 Oxygen cylinders should be prepared for use and set up in a secure position; vigilance by the operator during preparation is of critical importance.
04 Tighten all the connections, so that the oxygen does not leak out.
05 Before assembling regulators and fittings, it is extremely important to ensure that there are no particles of dirt in the cylinder outlet.
06 Where clean compressed air or nitrogen is not available, particles of dirt and residual moisture can be removed by quickly opening and immediately closing the valve.
07 No one should attempt to connect a regulator and/or accessory equipment using improvised hook-ups or adapters. Neither should the plastic tape be used on a regulator.
When using an oxygen cylinder, remember the following:

- All gas cylinders should be equipped with a functioning gas regulator while in use.
- Check the contents gauge on the cylinder before starting, to be sure that there is enough gas available.
- Ensure that the gas is only turned on when required. Adequate valves, pressure regulators and flowmeters should be placed to control the desired rates.
- Oxygen cylinder valves should be opened smoothly.
- Ensure adequate ventilation in the room to reduce the risk of fire.
- Secure oxygen cylinders in an upright position and cover the top of the oxygen cylinder with a cap when not in use or being transported.
- Keep empty and non-empty cylinders separately.
- Ensure that the storage room is well ventilated, clean and not exposed to extremes of temperature and humidity.
- Keep oxygen sources several meters away from ignition sources.
- Ensure adequate fire extinguishers are nearby.
- For personal safety, use PPE kit, eye shield and gloves while handling cylinders and move cylinders using trolley and workbenches. The cylinders regardless of their size should be secured to racks and shelves.

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Pulse oximeter usage at home

**Why is it used at home for COVID-19?**

Usually, a low blood oxygen level (Oxygen Saturation-SpO₂) causes symptoms like fatigue or shortness of breath. Your doctor may suggest checking your oxygen level at home. A pulse oximeter can help you know when you need medical attention even if you don’t have symptoms.

A precautionary warning for at least two readings is to be taken for accurate assessment and should not to be used for neonates. The use of fully charged batteries is also important for achieving correct reading in pulse oximeter.

**How to correctly use the pulse oximeter?**

1. Turn on the pulse oximeter—a clip like small device. (Check that it has batteries)
2. Make sure you don’t have nail paints or henna or any colour on your nail/finger.
3. Make sure that your hands are at normal temperature.
4. Rest and make your body relaxed before putting on the pulse oximeter.
5. Place the pulse oximeter on your index or middle finger of any hand.
6. Make sure that the finger fits well and the probe is not too tight or too loose.
7. Place your hand on your chest near your heart and don’t move your hand. Breathe normally.
8. Keep the pulse oximeter fitted on your finger for at least a minute, till the reading stabilises.
9. Record the highest reading that flashes on the oximeter, established after 5 seconds.
10. The device gives two results: your blood oxygen level (SpO₂) and your pulse rate (PR). Your doctor can help you know what numbers are normal for you.

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*Note* - A normal level of oxygen in room air is usually 95% or higher. However, if your home SpO₂ reading is lower than 94% and below, then hospital-based care is required.