

# OXYGEN CONSERVATION STRATEGIES

Surges of patients with COVID-19 have led to oxygen shortages in many hospitals.

How can we wisely conserve oxygen at the bedside while providing optimum patient care?

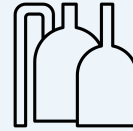
## Use an Oxymizer® Cannula

- Higher luminal diameter and reservoir can deliver up to 15 LPM while conserving oxygen



## Use Liquid Oxygen (LOX)

- The ratio of volume of LOX to gaseous oxygen is 860:1, so can store a lot of LOX in a small space



## Substitute Distilled Water for Sterile Water for Humidification

- If sterile water is in shortage, can substitute with distilled water or sterile flushes



## Look for Equipment Leakages

- Unplug anesthesia machines that can leak when not in use
- Check patient rooms for oxygen left on



## Use Conservative Oxygen Saturation Targets

- Accurate SpO<sub>2</sub> measurement is critical
- SpO<sub>2</sub> >98% not beneficial
- Target SpO<sub>2</sub> 92%-94%



## Use Mask Over High-Flow Nasal Cannulae to Act as a Reservoir

- Placing an O<sub>2</sub> face mask or surgical mask over HFNC can act as a reservoir, possibly allowing use of lower flow to achieve the same SpO<sub>2</sub>

## Use One Oxygen Supply for Multiple Patients

- A Y-connector or an emergency manifold can connect multiple patients to a common cylinder or portable concentrator



## Use NIV or HFNC, Not Both

- Conserve circuits by using either HFNC or noninvasive ventilation on a given patient who does not immediately require invasive ventilation