Prime Minister's Office

1.5 Lakh units of Oxycare Systems to procured through PM CARES

PM-CARES Fund to procure 1,50,000 units of Oxycare System at a cost of Rs 322.5 Crore.

Comprehensive system developed by DRDO to regulate oxygen being administrated to patients based on the sensed values of their SpO2 levels.

DRDO has transferred the technology to multiple industries in India who will be producing the Oxycare Systems for use all across India.

Oxycare system reduces the work load and exposure of healthcare providers by eliminating the need of routine measurement and manual adjustments of Oxygen flow

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PM-CARES Fund has accorded sanction for procurement of 1,50,000 units of Oxycare System at a cost of Rs 322.5 Crore. It is a comprehensive system developed by DRDO to regulate oxygen being administrated to patients based on the sensed values of their SpO2 levels.

The system has been developed in two Configurations. The basic version consists of a 10 litre Oxygen cylinder, a Pressure Regulator cum Flow Controller, a Humidifier and a Nasal Cannula. The Oxygen flow is regulated manually based on the SpO2 readings. The intelligent configuration includes a system for automatic regulation of Oxygen through a Low Pressure Regulator, Electronic Control System and an SpO2 Probe in addition to the basic version.

SpO2 Based Oxygen Control System optimises consumption of oxygen based on the SpO2 level of the patient and effectively increases the endurance of portable Oxygen cylinder. The threshold SpO2

value for initiating flow from the system can be adjusted by the health staff and the SpO2 levels are continuously monitored and displayed by the system. It reduces the work load and exposure of healthcare providers by eliminating the need of routine measurement and manual adjustments of Oxygen flow, thereby facilitating tele-consultation also. The automatic system also provides suitable audio warning for various failure scenarios including low SpO2 values and probe disconnections. These Oxycare systems can be used at Homes, Quarantine Centres, COVID Care Centres and Hospitals.

In addition, Non-Rebreather Masks (NRM) are integrated with the Oxycare Systems for efficient use of oxygen which results in saving of Oxygen by 30-40%.

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The current medical protocol recommends oxygen therapy for all severe and critical Covid-19 patients. Given the current status of oxygen generation, transport and storage, oxygen cylinders have proved to be effective. Considering the present COVID pandemic situation with large number of individuals requiring oxygen therapy, sourcing only one type of system may not be practical, as all the manufacturing plants making the basic building blocks of the system are already running at their maximum capacity. A mix and match of the system would prove to be a useful arrangement in the given situation. While the capacity of existing domestic manufacturers of carbon-manganese steel cylinders is very limited, as an alternative, DRDO has suggested light material portable cylinders which can easily act as substitutes for normal oxygen cylinders.

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