



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली - 110011

GOVERNMENT OF INDIA
MINISTRY OF HEALTH & FAMILY WELFARE
NIRMAN BHAVAN, NEW DELHI - 110011

डॉ. मनोहर अगनानी, भा.प्र.से.
अपर सचिव

DR. MANOHAR AGNANI , IAS
Additional Secretary

D.O. Number.....

Dated.....

Dear All,

In view of the rising number of COVID-19 cases across many States/UTs, the guidelines for Rational use of oxygen are to be adhered across all health facilities.

Some States including Kerala and Tamil Nadu have successfully implemented the rational use of oxygen and there has been approximately 25% reduction in oxygen consumption in these states. In consultation with senior health professionals, the guidelines for rational use of oxygen have been revised (as enclosed).

You are requested to kindly direct the concerned officials at State and District levels to ensure compliance to these guidelines for efficient management of COVID-19 cases.

Enclosure : as above

with kind regards,

Yours sincerely

25/04/2021

(Dr. Manohar Agnani)

To,

Additional Chief Secretary, Principal Secretary, Secretary (Health)- All State/ UTs

GUIDELINES FOR RATIONAL USE OF OXYGEN FOR MANAGEMENT OF COVID -19

The Ministry of Health and Family Welfare had issued an advisory on the rational use of oxygen vide D.O letter/1830290/immunization/2020 dated 25.09.2020. In the wake of rising cases of COVID-19 and an escalated need to ensure rational use of oxygen, a need was felt to review the advisory and issue updated comprehensive guidelines.

These guidelines are based on the recommendations of the leading clinical teams of the country who participated in a consultation as held on 22/04/2021, chaired by Dr. V.K. Paul, Member, NITI Aayog. Additionally, inputs of the Joint Monitoring Group (JMG) headed by Director General of Health Services (DGHS) MoHFW and Prof. (Dr.) Randeep Guleria, Director, AIIMS, New Delhi and Prof. (Dr.) Balram Bhargava, DG ICMR cum Secretary, Department of Health Research are included.

These guidelines aim to promote judicious use of oxygen therapy in individual cases, and to enhance accountability for oxygen conservation through monitoring and audit without compromising quality of care.

The majority of patients of COVID-19 have mild illness. Out of 100 patients, 80 are treated at home or COVID care centres. Out of the remaining 20, about 17 have moderate disease needing oxygen beds. Only 3 are in ICUs and are treated with oxygen therapy by Non Rebreathing mask (NRBM), Non Invasive ventilation (NIV), High Flow Nasal Cannula (HFNC), and Invasive ventilation.

Oxygen is a precious drug that should be used judiciously and the following action points are necessary to achieve this objective. These guidelines should be implemented by all the states and UTs.

RESPONSIBILITY OF THE HEALTH TEAM: Judicious use

- 1. The flow of oxygen should be adjusted to the lowest permissible level to target an oxygen saturation of 92%-94% for the hospitalized COVID 19 patients.**
2. Indiscriminate use of BIPAP/HFNC should be avoided. When required, BIPAP should be preferred over HFNC; the latter consumes enormous amount

of oxygen. HFNC device should be used only in the ICU setting under supervision of a respiratory physician/physician. Patient should be put on HFNC only after approval of the senior most respiratory physician/physician.

3. **Prone positioning** should be intermittently done in patients of COVID -19, along with adjunctive physiotherapy. This optimizes the respiratory status.
4. Individualization of oxygen therapy should be done taking into account the clinical signs like respiratory rate etc. and not just the saturation level. Once the desired saturation is achieved, flow of oxygen should not be increased as it may not provide any additional benefit to the patient. Up-titration instead of down titration of oxygen flow levels should be the norm.
5. Triaging of patients as per their oxygen status should be done at regular intervals.
6. An audit of the oxygen use by the ICU / ward should be done by the clinical team leader on a daily basis.

RESPONSIBILITIES OF STATE/HOSPITAL ADMINISTRATORS: Monitoring and Audit

1. A team of one Nurse and one OT Technician may be designated as **Oxygen Monitoring Team** for each shift at each hospital/health facility level. The team will visit all areas where oxygen supply / therapy is instituted.
 - a. Inspect the gas pipeline, wall mounted gas outlets, as well as gas cylinders to detect and promptly address leakages, if any. Nurse in the team will check the oxygen mask on a regular basis.
 - b. Ensure closure of valves during 'no-use' at all times.
 - c. Sensitize nurses and technicians for conservation of oxygen.
2. At the facility level, an **Oxygen Audit Committee** may be formed in every hospital which may consist of Additional Medical Superintendent, Head of Anesthesia, Head of Respiratory Medicine (Head of Internal Medicine incase Respiratory Medicine department does not exist) and Nursing Superintendent.
3. The Oxygen Audit Committee will be mandated to supervise inventory planning, oxygen consumption pattern ,regular repair and maintenance of gas pipelines, gas plant, and wall mounted gas outlets etc. It should review the consumption pattern of oxygen twice a week and conduct and audit and reduce

oxygen consumption if found to be in excess.

4. The hospital management should reduce all elective and emergency services to a minimum in view of the present pandemic situation
5. Regular training of OT Technicians and Nurse should be undertaken on proper oxygen administration and monitoring, and on conserving oxygen.
6. District Magistrate (DM) assisted by the Chief Medical Officer (CMO) of the district must also monitor the consumption including the rational use of oxygen in all facilities of the district on a weekly basis. Home oxygen cylinders should not be encouraged but the use of oxygen concentrators at home should be promoted whenever required.