Oxygen can be administered by constant or variable performance masks

**DRUGS**

**Oxygen**

---

**GENERIC AND PROPRIETARY NAMES**
- Oxygen (O₂).

**ACTION**
- Increases alveolar oxygen tension and decreases the work of breathing needed to maintain a given arterial oxygen tension.

**CLASSIFICATION**
- Respiratory system.
- Oxygen.

**INDICATIONS**
- Emergency treatment.
- Acute respiratory conditions such as pneumonia or pulmonary thromboembolism.
- Acute severe asthma.
- Chronic obstructive pulmonary disease (COPD) with PaO₂ < 7.3kPa when breathing air during a period of clinical stability.
- COPD with PaO₂ of 7.3–8kPa in the presence of secondary polycythæmia, nocturnal hypoxæmia, peripheral oedema or evidence of pulmonary hypertension.
- Interstitial lung disease with PaO₂ < 8kPa and in patients with PaO₂ > 8kPa with disabling dyspnoea.
- Cystic fibrosis when PaO₂ < 7.3kPa or, if PaO₂ is 7.3–8kPa in the presence of secondary polycythæmia, nocturnal hypoxæmia, pulmonary hypertension or peripheral oedema.
- Pulmonary hypertension without parenchymal lung involvement when PaO₂ < 8kPa.
- Neurormuscular or skeletal disorders, after specialist assessment.
- Obstructive sleep apnoea despite continuous positive airway pressure therapy, after specialist assessment.
- Pulmonary malignancy or other terminal disease with disabling dyspnoea.
- Heart failure with daytime PaO₂ < 7.3kPa (on air) or with nocturnal hypoxæmia.
- Paediatric respiratory disease, after specialist assessment.

**SIDE-EFFECTS**
- Respiratory depression.

**ADMINISTRATION**
- Via constant or variable performance masks or nasal cannulas.

**NURSING CONSIDERATIONS**
- Oxygen should only be prescribed for patients in the home after careful evaluation in hospital by respiratory experts.
- Oxygen services in England and Wales are ordered on a home oxygen order form (HOOF), which should specify the amount of oxygen required (hours per day) and flow rate.
- In Scotland patients are referred for assessment by a respiratory consultant and prescriptions for oxygen cylinders and accessories are dispensed by pharmacies contracted to provide domiciliary oxygen services.

**PATIENT TEACHING**
- Patients should be advised of the fire risks when receiving oxygen therapy.
- For domiciliary oxygen, consent should be gained from the patient to pass on their details to the supplier and the fire brigade.

- Patients should be informed that the supplier will be in contact to arrange delivery, installation and maintenance of the equipment.
- Respiratory depression is seldom a problem in stable respiratory failure treated with low concentrations of oxygen. However, patients and relatives should be warned of the potential and advised to seek prompt medical attention if drowsiness or confusion occur.

**REFERENCES**

Nurses should refer to manufacturer’s summary of product characteristics and to appropriate local guidelines.