

Guideline on emergency oxygen therapy to treat hypoxic patients with suspected COVID 19 within primary care hot sites v1 (7 Apr 2020)

Purpose of this document: this guide was produced for health care professionals working in hot sites with guidance on the use of emergency oxygen therapy to treat patients with hypoxaemia associated with suspected or confirmed COVID 19. It has been developed using the British Thoracic Society guidelines for Emergency Oxygen¹ and expert clinical consensus across London.

Indications for emergency oxygen therapy in patients without underlying lung disease

It is recommended that emergency oxygen must only be used to maintain target saturations in patients who have been assessed face to face and **are waiting for transfer to hospital**.

At the time of writing, specific clinical indications are:

- 1) Patients who are breathless and have oxygen saturations (presuming no underlying lung disease) **<94%**
- 2) Patients who are not breathless (silent hypoxaemia) and have oxygen saturations **<92%**

Signs of respiratory deterioration:

- ↑ Respiratory rate (especially if >25 per minute)
- ↓ Oxygen saturations by pulse oximetry
- ↑ Oxygen dose needed to maintain target sats (see algorithm below)

Signs of CO₂ retention are:

- Drowsiness
- Headache
- Flushed face
- Flapping Tremor

Assessment and monitoring

- Pulse oximetry and staff appropriately trained in its use must be available in all locations where emergency oxygen is being used
- Continuous monitoring and close observation of the patient whilst using oxygen therapy is advised
- The oxygen saturation should be monitored continuously until the ambulance arrives and receives handover

Recommended supply:

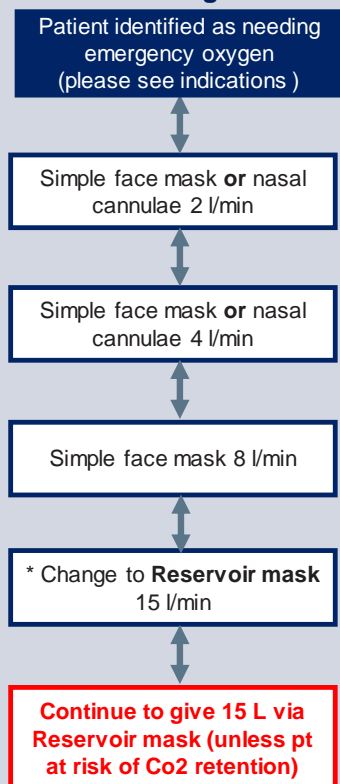
Emergency oxygen should be available in primary care sites, preferably using oxygen cylinders fitted with high-flow regulators (delivering over 6 L/min) must be used.

Recommended disposables:

It is recommended that the following delivery devices should be available:

1. High concentration reservoir mask (non-rebreathe mask) for high-dose oxygen therapy
2. Nasal cannulae (preferably) or simple face mask for medium dose oxygen therapy

Emergency oxygen treatment algorithm



Training on set up: This guide does not replace the training provided by Air Liquide on delivery of site-specific oxygen supply.

It is recommended that each site nominate 1-2 oxygen leads to support safe and effective use within primary care sites.

The key aim/s: to maintain target sats at **94-96% until the ambulance arrives**.

- The oxygen flow should be **adjusted upwards or downwards to maintain a saturation of 94%** for most patients (apart from those who may be more at risk of CO₂ retention (see above for signs).
- Target saturations for people **with COPD at risk of CO₂ retention are 88-92%**.

Information for safe supply and storage of oxygen and associated delivery devices

- It is recommended that **all Hot sites have 1-2 people who are responsible** for overseeing the supply, delivery devices and safe storage of their specific sites' emergency oxygen supply
- This is to ensure the partners listed below can expedite potential solutions to queries as they arise
- All systems containing compressed gases in UK are subject to Pressure Systems Safety Regulations 2000

Helpful contacts for London: should the designated oxygen lead for your hot/cold site require assistance please contact:

- 1) Air Liquide:
alhomecare.hcpsupport@nhs.net
- 2) London Oxygen Team:
Nelcsu.hosnelcsu.net
- 3) Local Home Oxygen Service Assessment and Review (HOSAR)