

**CPAP Use in the Respiratory Support Unit**

For use in confirmed COVID positive patients or in individuals who meet the definition of highly suspicious for COVID positivity (close contact with confirmed case or bilateral pneumonic changes or increasing oxygen requirements). This guidance is for management of type 1 respiratory failure. If a patient presents with type 2 respiratory failure discuss further management with the respiratory consultant via switchboard.

**Patient criteria for delivery of CPAP on 2C**

Access to the CPAP area (beds 4-8 on 2C) is only via discussion with the Respiratory consultant on call – this is a clinical decision and the referral should be made by a medical SpR or a consultant via switchboard.

1. Patient is **NOT** for escalation to ICU for invasive ventilation
2. Patient is tolerating oxygen via face mask
3. There is no evidence of terminal illness, for instance, advanced dementia or metastatic cancer
4. Patient does not have evidence of moderate frailty – ie they do not need help with outside activities and with keeping house. They do not have problems with stairs or bathing and do not need assistance with dressing
5. Patient receiving ≥40% oxygen with sats <92%
6. RR≥21bpm
7. Adequate level of consciousness ( A or V on AVPU score)
8. Every decision to refer for CPAP is individualised and if in doubt call the respiratory consultant on-call via switchboard

**Absolute contra-indications to CPAP (as per BTS/ICS NIV guidance)**

1. Severe facial deformity
2. Facial burns
3. Fixed upper airway obstruction

**Patients should receive a trial of CPAP for around 60 minutes**

Definition of failure of CPAP treatment after 60 minutes, failure to:

* Tolerate CPAP
* Improve saturations or reduce oxygen requirement
* Improve respiratory rate

If patient fails trial of CPAP following 60 minutes then CPAP should be withdrawn and oxygen applied via a face mask.

If a patient subsequently deteriorates whilst on CPAP it should be withdrawn, oxygen should be given via a NRB face mask and consider giving medication to control symptoms.

**CPAP use and device settings**

CPAP is the primary mode of non-invasive respiratory support for hypoxaemic COVID-19 patients. Settings are 10cm H2O + 60% oxygen or 15 lpm entrained into the facemask. **HFO should NOT be used as first line treatment for COVID unless specified by a Respiratory Consultant.** The key to successful use of CPAP is patient tolerance. Small doses of benzodiazepine or opioid can be considered to facilitate this.

High flow face masks with non-rebreathe reservoir bags should be considered as a modality to give short breaks to patients from CPAP.

Oxygen should be given entraining oxygen into the CPAP mask rather than the CPAP base unit.

Consider intravenous fluids (1 litre every 12 hours) and nutritional supplementation in addition to oral intake while patients are on CPAP.

**Staffing**

The medical CPAP unit must be staffed appropriately. This is considered to be 2 trained nurses for the first 5 patients and 3 trained nurses for between 6-10 patients. These safe staffing numbers take into consideration the geographical layout of the Respiratory support Unit which bridges wards 2C and 2D.



**Proven or Likely COVID-19 and not for ITU**

**(see ITU escalation protocol)**

**Prescribe anticipatory medications**

Sats ≥ 92% on room air

Sats < 92% on room air

Sats < 92% on ≥40% O2

Consider discharge target sats 92%-96%

Sats ≥ 92% on

< 40% O2

COVID Ward 2B/2C

Does not fulfil criteria for CPAP

 Fulfils escalation criteria for CPAP

O2via Venturi or nasal cannulae to achieve sats ≥ 92%

Sats ≥ 92%

Sats < 92%

NRB O2 as ceiling of oxygen care and consider opioids & benzodiazepines

Medical registrar or consultant to phone “on call” respiratory consultant via switchboard

COVID Ward preferably 2B/2C

Decision made either to provide CPAP on 2C or alternate ceiling of care, including HFO

**CONSIDER CPAP- escalation MUST be clearly documented**

Increase O2 to 60% as holding manouver

Criteria for CPAP (see page 1)

Not for ICU

Tolerating Face mask

No terminal illness

No moderate/severe frailty

Receiving ≥40% O2

RR≥21

A or V on AVPU