Role of CPAP in COVID inpatients

- **Suspected COVID patient and SaO2 <=94% and RR >= 20 with FiO2 >= 60% and ABG – Type 1 Resp Failure**
  - **Respiratory/GIM on call consultant decision to give CPAP?**
  - **Move to side room**
  - **Start CPAP at 7-8 cm H2O with FiO2 60%**
  - **Move to COVID respiratory ward side room**
  - **If still RR>20, sats <94% after 1 hour:**
    - **increase CPAP by 2cmH2O up to 12cm H2O+ FiO2 up to 100%**
    - **FiO2 reduce to maintain target sats 94% if well**
    - **Stop CPAP once RR<20, sats 94% and FiO2 40%**

- **If pH <7.32 and known chronic T2 RF**
  - **Consider BiPAP**
  - **Escalate to ITU if Frailty score <=4 and not responding to BiPAP**

- **Frailty score 1 - 4**

- **Frailty score 5**

- **Frailty score 6**

- **Treatment escalation plan + Clinical Frailty Score on all patients prior to CPAP**

- **RR >=20 and Sao2 <=94% on 60% O2**

- **Bleep ITU doctor for invasive ventilation**

- **Patient declined invasive ventilation**

- **Intubation**

- **Intubation**

- **Patient agrees to CPAP**

- **Patient declines CPAP**

- **Patient declines CPAP**

- **Palliation; stop O2**

- **If deteriorates despite treatment and not for ICU**

- **If deteriorates for ITU**

- **If deteriorates and TEP for ITU**

- **Treat medically with oxygen and assess ceiling of care**

- **Suspected COVID patient and SaO2 <=94% and RR >= 20 with FiO2 >= 60% and ABG – Type 1 Resp Failure**

- **If ICU request trial of CPAP**

- **Yes**

- **No**

- **Palliation; stop O2**
Indications for CPAP in COVID T1RF

- Ceiling of treatment in non ICU patients + fraility score ≤ 5*
- Trial to avoid intubation on ICU
- Bridging to intubation

- Please note there are a limited number of CPAP machines
  - * Mildly frail=need help with higher level ADLS eg finances, heavy housework, going outside alone.
Starting CPAP in COVID T1 RF

- To be started by ST3+ only with respiratory/A&E or ICU consultant advice requested.
- Only in side room and moved to a COVID respiratory ward
- Full PPE to be worn by all healthcare professionals caring for patient

- Starting pressure of 7-8cm H2O and FiO2 of 60%
- Aim sats 94% and RR<20 initially
- If required, titrate up to 12cm to 15cm H2O as tolerated; FiO2 up to 100%.
- Monitoring of oxygen saturations, Respiratory rate, pulse rate required
- 1 Hour review to check if treatment is working, and modify settings as required. Thereafter 4 hours review; then 24 hours or clinical need

- ABG not required unless suspicion of type 2 respiratory failure.
Continuing CPAP in COVID T1RF

• Low threshold if clinical decline despite CPAP
  - to invasive intubation if for ICU
  - to conventional oxygen and palliation if not for invasive ventilation

• 48 hours reassessment of continuing CPAP

• When condition stable- RR<20
  - reduce FiO2 to allow 92%
  - Wean CPAP to conventional O2 once FiO2<40%
Potential complications

• Mask leak- senior nurse to adjust to minimise

• Intolerance of mask
  - consider low dose opiate eg morphine 2.5mg orally or sc
  - consider moving to next escalation step

• Pneumothorax
  - consider if rapid deterioration
  - surgical emphysema
Clinical Frailty Scale*

1. **Very Fit** – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

2. **Well** – People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally.

3. **Managing Well** – People whose medical problems are well controlled, but are not regularly active beyond routine walking.

4. **Vulnerable** – While not dependent on others for daily help, often symptoms limit activities. A common complaint is being “slowed up”, and/or being tired during the day.

5. **Mildly Frail** – These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

6. **Moderately Frail** – People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.

7. **Severely Frail** – Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).

8. **Very Severely Frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

9. **Terminally Ill** – Approaching the end of life. This category applies to people with a life expectancy < 6 months, who are not otherwise evidently frail.

**Scoring frailty in people with dementia**

The degree of frailty corresponds to the degree of dementia. Common symptoms in mild dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In moderate dementia, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In severe dementia, they cannot do personal care without help.


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