

VENTILATOR SETTINGS FOR COVID-19 ASSOCIATED RESPIRATORY FAILURE

Initial settings

- SIMV-VC with Autoflow
- Vt: 6mL/kg (IBW)
- RR: 15bpm
- I:E ratio: 1:1
- PEEP: 10cmH₂O
- FiO₂: 1.0 initially then titrate

Goals

- Avoid excessive fluid resuscitation
 - Consider early vasopressor support
- Position 30-40 degrees head up
- FiO₂: <0.6
- SpO₂: 90-95%
- PaO₂: 60-80mmHg
- pH: >7.2

Troubleshooting

Hypoxia

1. Increase FiO₂
2. Check ETT position, exclude blockage
3. Check ventilator/ tubing
 - If ventilator malfunction suspected:
Disconnect from vent and hand-bag with BVM and PEEP valve
4. Complications?
 - PTX, effusion, haemothorax
5. Paralyse
6. Increase PEEP to 15cmH₂O
 - Consider reducing Vt to minimum 4mL/kg IBW and tolerate higher CO₂ if pH >7.2
5. Change I:E to 2:1
7. Optimise patient positioning
 - If unilateral disease, position good lung down

Hypercarbia

1. Check ETT position, exclude blockage
2. Check ventilator/ tubing
 - If ventilator malfunction suspected:
Disconnect from vent and hand-bag with BVM and PEEP valve
3. Complications?
 - PTX, effusion, haemothorax
4. Paralyse
5. Increase RR incrementally to a maximum of 30bpm