

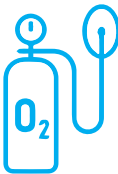
WHO/AFRO: RESPONSE TO COVID-19 OUTBREAK

CRITICAL CARE MANAGEMENT OF COVID-19 ALGORITHM



INFECTION CONTROL PRINCIPLES

- Fitted masks, gloves, gown, eye protection for aerosol generating procedures
- Perform aerosol generating procedures (AGPs) in a negative pressure room
- Surgical masks, gloves, gown, eye protection for HCWs caring for non-ventilated or ventilated (closed circuit) COVID-19 patients if non AGPs being performed



RESPIRATORY MANAGEMENT

- Start supplemental oxygen if SPO $<90\%$, target SPO 92-96
- Escalation to HFNC for acute hypoxemic respiratory failure despite conventional oxygen therapy
- Trial of NIPPV if HFNC unavailable, and there is no urgent indication for intubation (close monitoring needed for respiratory status deterioration)
- Intubation for patients with urgent indication to be done by the most experienced, in a negative pressure room
- Tidal volume 4-8 ml/kg PBW, for mechanically ventilated adults with ARDS
- Plateau pressure <30 cmH₂O and higher PEEP for mechanically ventilated patients
- Prone ventilation for 12-16 hours in mechanically ventilated patients with moderate-severe ARDS
- Deep sedation for mechanically ventilated patients with moderate-severe ARDS, with NMBA as needed to prevent dyssynchrony



SUPPORTIVE MANAGEMENT

- Haemodynamic management:
- Bufferd crystalloids for fluid resuscitation in shock
- Noradrenaline as 1st line vasoactive agent for fluid refractory shock, adrenaline or vasopressin as alternatives(target MAP 60-65 mmHg)
- Low dose hydrocortisone for catecholamine refractory shock
- Conservative over liberal fluid management strategy
- Paracetamol for pyrexia management
- Empirical antimicrobial/antibacterial therapy for mechanically ventilated patients in respiratory failure (regular assessment for de escalation)
- Nutrition
- Early enteral nutrition (EN), within 12 hrs of intubation or 24-36 hrs of ICU admission; start low and advance to 80% goal by the end of the 1st week (Incorporate macro and micronutrients)
- Switch to parenteral nutrition if EN via gastric feeding is not an option
- Effective and empathetic communication to critically ill patients with COVID-19; initiating psychosocial support strategies
- Venous thrombo- prophylaxis (chemical or mechanical)

ARDS-Acute respiratory distress syndrome; HCWs-Health care workers; HFNC-High flow nasal cannula; ICUIntensive care unit; MAP-Mean arterial pressure; NIPPV-Non-invasive positive pressure ventilation; NMBA-Neuromuscular blocking agent; PEEP-Positive end expiratory pressure; PBW-Predicted body weight
Adapted from:

1. Surviving Sepsis Campaign: Guidelines on the Management of Critically Ill Adults with Coronavirus Disease 2019 (COVID-19). ESICM2020
2. World Health Organization Clinical Management of COVID-19. Interim Guidance. May 2020