**CLINICAL GUIDANCE FOR MANAGEMENT OF ADULT COVID-19 PATIENTS**

**MUST DoS**
- Physical distancing, indoor mask use, strict hand hygiene
- Symptomatic management (hydration, anti-pyretics, anti-tussive)
- Stay in contact with treating physician
- Monitor temperature and oxygen saturation (by applying a SpO2 probe to fingers)

**Seek immediate medical attention if:**
- Difficulty in breathing or SpO2 <93%
- High grade fever/severe cough, particularly if lasting for >5 days
- A low threshold to be kept for those with any of the high-risk features

**MAY DoS**
- Therapies based on low certainty of evidence especially for those with high-risk of progression

**Inhalational Budesonide** (given via Metered dose inhaler / Dry powder inhaler) at a dose of 800 mcg BD for 5 days to be given if symptoms (fever and cough) are persistent beyond 5 days of disease onset

**High-risk for severe disease or mortality**
- Age >60 years
- Cardiovascular disease, hypertension, and CAD
- Diabetes mellitus and other immunocompromised states (such as HIV)
- Active tuberculosis
- Chronic lung/kidney/liver disease
- Cerebrovascular disease
- Obesity

**Upper respiratory tract symptoms and/or fever WITHOUT shortness of breath or hypoxia**

**Moderate disease**
- Anyone of:
  1. Respiratory rate ≥24/min, breathlessness
  2. SpO2: 90% to ≤93% on room air

**Severe disease**
- Anyone of:
  1. Respiratory rate >30/min, breathlessness
  2. SpO2: <90% on room air

**ADMIT IN WARD**

**Oxygen Support:**
- Target SpO2: 92-96% (88-92% in patients with COPD)
- Preferred devices for oxygenation: non-rebreathing face mask
- Awake proning encouraged in all patients requiring supplemental oxygen therapy (sequential position changes every 2 hours)

**Anti-inflammatory or immunomodulatory therapy:**
- Inj. Methylprednisolone 0.5 to 1 mg/kg in 2 divided doses (or an equivalent dose of dexamethasone) usually for a duration of 5 to 10 days
- Patients may be initiated or switched to oral route if stable and/or improving
- There is no evidence for benefit for injectable steroids in those NOT requiring oxygen supplementation, or on continuation after discharge
- Anti-inflammatory or immunomodulatory therapy (such as steroids) can have risk of secondary infection such as invasive mucormycosis when used too early, at higher dose or for longer than required

**Anticoagulation:**
- Conventional dose prophylactic unfractionated heparin or Low Molecular Weight Heparin (weight based e.g., enoxaparin 0.5mg/kg per day SC). There should be no contraindication or high risk of bleeding

**Monitoring:**
- Clinical Monitoring: breathing rate, Hemodynamic instability, Change in oxygen requirement
- Serial CXR; HRCT chest to be done ONLY if there is worsening
- Lab monitoring: CRP, D-dimer, blood sugar 48 to 72 hrly; CBC, KFT, LFT 24 to 48 hrly

**ADMIT IN HDU/ICU**

**Respiratory support:**
- Consider use of NIV (Helmet or face mask interface depending on availability) in patients with increasing oxygen requirement, if work of breathing is LOW
- Consider use of HFNC in patients with increasing oxygen requirement
- Intubation should be prioritized in patients with high work of breathing if NIV is not tolerated
- Use institutional protocol for ventilatory management when required

**Anti-inflammatory or immunomodulatory therapy:**
- Inj. Methylprednisolone 1 to 2 mg/kg IV in 2 divided doses (or an equivalent dose of dexamethasone) usually for a duration 5 to 10 days
- Anti-inflammatory or immunomodulatory therapy (such as steroids) can have risk of secondary infection such as invasive mucormycosis when used too early, at higher dose or for longer than required

**Supportive measures:**
- Maintain euvoemia (if available, use dynamic measures for assessing fluid responsiveness)
- If sepsis/septic shock: manage as per existing protocol and local antibiogram

**Monitoring:**
- Clinical Monitoring: work of breathing, Hemodynamic instability, Change in oxygen requirement
- Serial CXR; HRCT chest to be done ONLY if there is worsening
- Lab monitoring: CRP, D-dimer, blood sugar 48 to 72 hrly; CBC, KFT, LFT 24 to 48 hrly

**EU/A (off label use based on limited available evidence and only in specific circumstances):**
- Remdesivir (EU/A) may be considered ONLY in patients with:
  - 10 days of onset of symptoms, in those having moderate to severe disease (requiring supplemental oxygen), but who are NOT on IMV or ECMO
  - Consider remdesivir for 5 days to treat hospitalized patients with COVID-19 (No evidence of benefit for treatment more than 5 days)
  - NOT to be used in patients who are NOT on oxygen support or in home setting
  - Monitor for FTT and LFT (remdesivir not recommended if eGFR <30 ml/min/m2; AST/ALT >5 times UNL) (not an absolute contraindication)
- Recommended dose: 200 mg IV on day 1 followed by 100 mg IV OD for next 4 days

**Tocilizumab** may be considered when ALL OF THE BELOW CRITERIA ARE MET
- Rapidly progressing COVID-19 needing oxygen supplementation or IMV and not responding adequately to steroids (preferably within 24-48 hours of onset of severe disease / ICU admission)
- Preferably to be given with steroids
- No active TB, fungal, systemic bacterial infection
- Long term follow up for secondary infections (such as reactivation of TB, Flaring of Herpes etc.)
- Significantly raised inflammatory markers (CRP and/or IL-6)
- Recommended single dose: 4 to 6 mg/kg (400 mg in 60 kg adult) in 100 ml NS over 1 hour