July 26, 2021

Clinical Guidance for Management of Covid-19

ANNEXURE-4

Mild
(Fever / Upper Respiratory Tract Infection)

Home isolation as per Govt. policy

- Contact and droplet precautions
- Strict hand hygiene
- Symptomatic management (adequate nutrition & hydration, paracetamol, antitussives, Vit C, weekly vitamin D sachet)
- Pulse oximeter monitoring with 1- minute sit up/sit down test – twice daily – in case fall in saturation < 94% - **need to inform health care provider (HCP)**
- Self-monitoring of vitals **(Annx. 2)**

Warning symptoms/signs (Annx 1)

Difficulty in breathing, persistent pain/ pressure in the chest, mental confusion or inability to arouse, bluish discoloration of lips / face, decreased urine output.

In case of persistent high fever, patients should seek consultation with their HCP for further investigations.

***Patients with high risk factors*:** Admit to COVID Care Centre (CCC)

- RBS, CBC, ECG, Chest X-ray (symptomatic), RFT (HTN)

In high risk patients with co-morbidities: Inhaled Budesonide (MDI/DPI): 800mcg twice daily for up to 10 days after consultation with their HCP; rinse mouth after use

Investigational Therapies

Monoclonal antibodies (see below) [%]

Ivermectin (0.2 mg/kg/day for 3 days)

Moderate
Pneumonia with no signs of severe disease
RR ≥24 / min.
SPO2 <94% on room

Dedicated COVID Health Centre (DCHC)

- ECG, RBS, CBC, LFT, RFT
- CRP, D-Dimer every 48-72 hourly

Oxygen Support

- Target SpO_2: 90-94% (88-92% in patients with COPD)
- Preferred device for oxygenation: simple nasal cannula / Non-rebreathing face mask
- Awake Proning: Rescue therapy

Medical Management

- Intravenous dexamethasone: 0.1- 0.2mg/Kg OD x 5 days or more (up to 10 days) ^
- Antimicrobials – see box below[$]
- Prophylactic dose of UFH or LMWH (e.g., Enoxaparin 40mg daily SC)

Shift to DCH/ICU if:

- Increased Work of breathing (use of accessary muscles)
- Hemodynamic instability
- Increase in oxygen requirement

Investigational Therapy:

Remdesivir ^^ (high risk patients; within 10 days) 200 mg IV on day 1 f/b 100mg IV daily for next 4 days

Worsening Hypoxia/Early Cytokine Storm
Suspected by increasing oxygen requirement and rising CRP levels typically more than 30.
Management - Depends upon initial Oxygen Requirement **(DCH facility)**

FiO2 0.35-0.60
- Typically, on HFNC or Ventimask
- Plan for **Tocilizumab[#]** - indicated in patients exhibiting rapid respiratory decompensation; after 24-48 hours of dexamethasone

FiO2 > 0.60 / NIV
- **Offer Tocilizumab[#]**

If tocilizumab is not available, baricitinib [##] may be considered

[#]Tocilizumab to be started after team discussion not later than 10 days after symptoms onset, only in combination with steroids, and needs heparin to be changed to therapeutic dose if not contraindicated.

Tocilizumab dosage: 40-65 Kg = 400mg; 65-90 Kg= 600mg; more than 90 Kg= 800 mg

Severe
Respiratory distress requiring mechanical ventilation, RR ≥30 / min.
SPO2 < 90% on room air.

Dedicated COVID Hospital (DCH)

- Cautious trial of CPAP with oronasal mask/ NIV with helmet interface/ HFNC, if work of breathing is low
- Maintain euvolemia
- Intravenous Dexamethasone: 0.1-0.2 mg/kg OD x 5days or more (up to 10 days) ^
- Consider Inj. Tocilizumab for cytokine storm **
- High prophylactic dose of UFH or LMWH (e.g., enoxaparin 40 mg or 0.5 mg/kg BD SC), if not at high risk of bleeding*
- Therapeutic doses of LMWH (1mg/kg SC BD) should be considered in patients with incident thromboembolic event or who are highly suspected to have thromboembolic disease
- Consider intubation if work of breathing is high/ not tolerating NIV

Ventilator management

- Use conventional ARDSNet protocol (LTV, proning, etc,)
- Antimicrobials generally needed (See box below for principles of antimicrobial use) [$]
- Use sedation and nutrition therapy as per existing guideline

*Use Validated score for assessing bleeding risk (e.g., HAS-BLED score)
*Use D-Dimer & SIC score for further risk stratification (SIC>4 portends higher thrombotic risk)
*AHA/ESC guidelines if patient is on antiplatelet agent

[$] Unnecessary use of **antimicrobials** should be avoided. For patients requiring hospital management where a diagnosis of COVID is not established, and a differential diagnosis of Community/Hospital Acquired Pneumonia and or Tropical Fever is a possibility, after sending appropriate investigations, empiric antimicrobial(s) may be initiated with aim to deescalate as soon as correct diagnosis is established.

[$] Patients presenting with sepsis/septic shock, should be classified as potentially having community or hospital acquired infections based on history. For suspected community acquired organisms, **ceftriaxone/piperacillin-tazobactam with vancomycin** may be initiated. For hospital acquired infections and patient in shock, **piperacillin tazobactam OR carbapenem with vancomycin/teicoplanin** may be initiated. Appropriate diagnostics should be sent before initiation of antimicrobials with the aim of de-escalation or initiating specific antimicrobial. **Antifungal** use should be limited and as far as possible for lab proven infections. All prescriptions must be reviewed within the next 48 hours.

^**Dexamethasone:** Duration and tapering should be done according to patient's condition

^^ **Remdesivir:** Does not provide an overall mortality benefit in COVID-19 patients, may reduce time to clinical recovery.

[##] **Baricitinib** - 4 mg orally OD for 14 days or until hospital discharge, whichever is earlier. Dosage adjustment needed in renal impairment. Combined use of **tocilizumab** and **baricitinib** should be avoided, as there is a potential for increased risk of infections

** In case **tocilizumab** is considered for a patient on invasive ventilation, it should be given within 24 hours of starting ventilation. Rule out other causes of rapid respiratory decompensation

[%] **Monoclonal antibodies - Casirivimab and Imdevimab** - 1200 mg (600 mg each) by IV infusion or SC route**;** to be considered in immunocompromised patients or those on immunosuppressive therapy and who are seronegative.

Mental health issues to be addressed in consultation with psychiatrist /psychologist / voluntary organization.