



Symptomatic Categorization and Appropriate referrals to COVID hospitals

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Referral Mechanism for COVID-19 Patients based on symptoms

COVID Care Centres/Home Isolation

- COVID-19 suspect (As per the guidelines by Government of India)
- COVID-19 positive patients with Uncomplicated illness or
- COVID-19 positive patients with uncomplicated upper respiratory tract viral infection, may be non-specific symptoms such as fever, cough, sore throat, nasal congestion, malaise, headache

Referral Mechanism for COVID-19 Patients based on symptoms

Dedicated COVID Healthcare Centre (DCHC)

- Pneumonia with no signs of Severe Disease
 - Patients with age more than 65 years and associated Comorbidities
 - Respiratory Rate 15-30 breaths/min
 - SpO₂ - 90%-94% at room air

Referral Mechanism for COVID-19 Patients based on symptoms

Dedicated COVID Healthcare Centre (DCHC)

- Child with non-severe pneumonia has cough or difficulty in breathing/ fast breathing and no signs of severe pneumonia
 - Fast breathing – in breaths/min can be defined as:
 - ✓ Age <2 months - ≥ 60 breaths/min
 - ✓ Age 2-11 months - ≥ 50 breaths/min
 - ✓ Age 1-5 years - ≥ 40 breaths/min

Referral Mechanism for COVID-19 Patients based on symptoms - Dedicated COVID Hospitals (DCH)

Severe pneumonia

- Adolescent or adult with fever or suspected respiratory infection, plus one of the following:
 - i. Respiratory rate > 30 breaths/min, or
 - ii. Severe respiratory distress, SPO2 <90% on room air
- Child with cough or difficulty in breathing, plus at least one of the following:
 - i. Central cyanosis or SpO2 <90%; or
 - ii. Severe respiratory distress (e.g. grunting, chest in-drawing);
 - iii. Signs of pneumonia with any of the following danger signs:
 - Inability to breastfeed or drink, lethargy or consciousness, or
 - Convulsions
 - Chest indrawing
 - Fast breathing– in breaths/min:
 - Age <2 months - ≥ 60 breaths/min
 - Age 2-11 months - ≥ 50 breaths/min
 - Age 1-5 years - ≥ 40 breaths/min

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Acute Respiratory Distress Syndrome

- Onset of new or worsening respiratory symptoms within one week of known clinical insults
- Chest imaging (Radiograph, CT scan, or lung ultrasound) showing bilateral opacities, not fully explained by effusions, lobar or lung collapse or nodules
- Origin of oedema due to respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g. echocardiography) to exclude hydrostatic cause of oedema if no risk factor present.
- Oxygenation (adults):
 - Mild ARDS: $200 \text{ mmHg} < \text{PaO}_2/\text{FiO}_2 \leq 300 \text{ mmHg}$ (with PEEP or CPAP ≥ 5 cm H₂O, or non-ventilated)
 - Moderate ARDS: $100 \text{ mmHg} < \text{PaO}_2/\text{FiO}_2 \leq 200 \text{ mmHg}$ with PEEP ≥ 5 cm H₂O, or non-ventilated)

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Acute Respiratory Distress Syndrome...

- Severe ARDS: $\text{PaO}_2/\text{FiO}_2 \leq 100$ mmHg with PEEP ≥ 5 cm H₂O, or nonventilated)
 - When PaO_2 is not available, $\text{SpO}_2/\text{FiO}_2 \leq 315$ suggests ARDS (including in nonventilated patients)
- Oxygenation (children; note OI = Oxygenation Index and OSI = Oxygenation Index using SpO_2)
- Bilevel NIV or CPAP ≥ 5 cm H₂O via full face mask: $\text{PaO}_2/\text{FiO}_2 \leq 300$ mmHg or $\text{SpO}_2/\text{FiO}_2 \leq 264$
 - Mild ARDS (invasively ventilated): $4 \leq \text{OI} < 8$ or $5 \leq \text{OSI} < 7.5$
 - Moderate ARDS (invasively ventilated): $8 \leq \text{OI} < 16$ or $7.5 \leq \text{OSI} < 12.3$
 - Severe ARDS (invasively ventilated): $\text{OI} \geq 16$ or $\text{OSI} \geq 12.3$

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Sepsis

Adults:	Children:
<p>➤ life-threatening organ dysfunction caused by a dysregulated host response to suspected or proven infection, with organ dysfunction.</p> <p>➤ Signs of organ dysfunction include:</p> <ol style="list-style-type: none">i. altered mental status,ii. difficult or fast breathing,iii. low oxygen saturation,iv. reduced urine output,v. fast heart rate, weak pulse, cold extremities or low blood pressure,vi. skin mottling, or laboratory evidence of coagulopathy, thrombocytopenia, acidosis, high lactate or hyperbilirubinemia.	<p>➤ Any hypotension (SBP <5th centile or >2 SD below normal for age) OR 2-3 of the following:</p> <ul style="list-style-type: none">▪ Altered mental state,▪ Tachycardia or bradycardia (HR <90 bpm or >160 bpm in infants and HR <70 bpm or >150 bpm in children),▪ Prolonged capillary refill (>2 sec) or warm vasodilation with bounding pulses;▪ tachypnoea;▪ Mottled skin or petechial or purpuric rash,▪ Increased lactate,▪ Oliguria,▪ Hyperthermia or hypothermia



Thanks