Training on nCOVID for AYUSH Medical Officers

Topic - Clinical Case Management
Learning Objectives

1. Learn the key steps in management
2. Learn the complications and important points
Clinical Spectrum

Uncomplicated Illness

Fever, cough, sore throat, nasal congestion, malaise, headache, muscle pain or malaise

The elderly and immunosuppressed may present with atypical symptoms. These patients do not have any signs of dehydration, sepsis or shortness of breath

Mild pneumonia

Patient with pneumonia and no signs of severe pneumonia

Child with non-severe pneumonia has cough or difficulty breathing + fast breathing: fast breathing (in breaths/min): <2 months, ≥60; 2-11 months, ≥50; 1-5 years, ≥40 and no signs of severe pneumonia
Clinical Spectrum

Severe Pneumonia

Adolescent or adult: fever or suspected respiratory infection, plus one of respiratory rate >30 breaths/min, severe respiratory distress, or SpO2 <90% on room air

With cough or difficulty in breathing, plus at least one of the following: central cyanosis or SpO2 <90%; severe respiratory distress (e.g. grunting, very severe chest indrawing); signs of pneumonia with a general danger sign: inability to breastfeed or drink, lethargy or unconsciousness, or convulsions. Other signs of pneumonia may be present: chest in-drawing, fast breathing (inbreaths/min): <2 months, ≥60; 2–11 months, ≥50; 1–5 years, ≥40. The diagnosis is clinical; chest imaging can exclude complications
Clinical Spectrum

Acute Respiratory Distress Syndrome

Onset: new or worsening respiratory symptoms within one week of known clinical insult. Chest imaging (radiograph, CT scan, or lung ultrasound): bilateral opacities, not fully explained by effusions, lobar or lung collapse, or nodules

Origin of oedema: respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g. echo) to exclude hydrostatic cause of oedema if no risk factor present.

Clinical Spectrum

Mild ARDS: 200 mmHg < PaO2/FiO2 ≤ 300 mmHg (with PEEP or CPAP ≥5 cmH2O, or non-ventilated)
Moderate ARDS: 100 mmHg < PaO2/FiO2 ≤200 mmHg with PEEP ≥5 cmH2O, or non-ventilated)
Severe ARDS: PaO2/FiO2 ≤ 100 mmHg with PEEP ≥5 cmH2O, or non-ventilated)

• When PaO2 is not available, SpO2/FiO2≤315 suggests ARDS (including in non-ventilated patients)
Early Supportive Therapy

Initiate oxygen therapy at 5 L/min and titrate flow rates to reach target SpO2≥90% in non-pregnant adults and SpO2 ≥92-95 % in pregnant patients

Use conservative fluid management in patients with SARI when there is no evidence of shock

Patients with SARI should be treated cautiously with intravenous fluids, because aggressive fluid resuscitation may worsen oxygenation, especially in settings where there is limited availability of mechanical ventilation

Give empiric antimicrobials to treat all likely pathogens causing SARI

Give antimicrobials within one hour of initial patient assessment for patients with sepsis: Although the patient may be suspected to have nCoV, administer appropriate empiric antimicrobials within ONE hour of identification of sepsis

Empiric antibiotic treatment should be based on the clinical diagnosis (community-acquired pneumonia, health care-associated pneumonia [if infection was acquired in healthcare setting], or sepsis), local epidemiology and susceptibility data

Empiric therapy includes a neuraminidase inhibitor for treatment of influenza when there is local circulation or other risk factors

Empiric therapy should be de-escalated on the basis of microbiology results and clinical judgment
Management

**Early Supportive Therapy**

Closely monitor patients with SARI for signs of clinical deterioration, such as rapidly progressive respiratory failure and sepsis, and apply supportive care interventions immediately.

Application of timely, effective, and safe supportive therapies is the cornerstone of therapy for patients that develop severe manifestations of nCoV.

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Understand the patient’s co-morbid condition(s) to tailor the management of critical illness and appreciate the prognosis.

During intensive care management of SARI, determine which chronic therapies should be continued and which therapies should be stopped temporarily.

Communicate early with patient and family.

Communicate proactively with patients and families and provide support and prognostic information.

Understand the patient’s values and preferences regarding life-sustaining interventions.