

COVID SECOND WAVE

SOME GENERAL FACTORS

1. RT-PCR may be negative-(read ORF and N gene also as S gene may not be detectable).
2. Diagnosis- (If RT-PCR negative) ----- Clinical symptoms,
Serum Markers
CT Chest.
3. Anti inflammatory medicines should be given between 7-10 days to prevent Covid Cytokine storm.
4. CORONA is not a lung Disease. (It is Systemic Thrombo-hyperinflammatory Vascular Disease)
5. Virus stops replicating after 9 days.
6. Features of Pneumonia-

Temp>101

CRP 

Rapid rise of CRP

Cough on day 3

5% fall in SPO2 after 6 min. walk.

7- Loss of smell is equal to RT-PCR

8- 15 minutes of exposure is required to get the infection.

COVID CLASSIFICATION

	MILD	MODERATE	SEVERE
SPO2	>94	90-94	<90
RR	<24	24-30	>30
XRAY-CHEST	WNL	1 or 2 zones	2 or more zones
CT CHEST	WNL or <25%	<50%	>50%
SYMPTOMS	Fever +/-	Fever with breathing difficulty	Fever with respiratory distress.

EARLY INVESTIGATIONS

1. CBC with NLR (Neutrophil/Lymphocyte Ratio)
2. CRP,ESR,PROCALCITONIN
3. IL-6
4. D-DIMER (Very important- Repeat after 3 days)
5. FERRITIN
6. LDH (A sign of cell death)

IMPORTANT LAB READINGS

	MILD	MODERATE	SEVERE
NLR	<3/2	>3/2	>5/2
CRP	<20	20-50	>50
FERRITIN	<500	>500	>800
D-DIMER	<.5	.5-1.0	>1.0
LDH	<300	300-400	>400
IL-6	<5	5-50	>50
LFT	WNL	Slight change	Moderate change

Notes----

1. CRP a good marker to start Steroid
2. IL-6 is very unreliable.(Timely collection and rapid transportation required. Choose the same LAB)
3. D-Dimer-----Monitor every 2-3 days
4. LDH – Useful follow-up parameter
5. NLR a good prognostic factor.

IMPORTANT FACTORS

1. Antivirals should be given in replication phase.
2. Anti inflammatory (steroids) should be started in early Pulmonary phase i.e. after 9 days (replication phase)
3. ***LMWH (ENOXAPERIN) 40mg or 1mg/Kg S/C OD dose should be given in all admitted patients.***
4. Increasing Lymphopenia indicates severity.

CRITICAL SIGNS

1. Temp > 103 without PCM or 101 after PCM
2. Persistent cough
3. Sudden onset of shortness of Breath(SOB)
4. Rapid increase in CRP
5. CT Chest score >13/25

GENERAL TREATMENT

1. BP, PR, Temp, SPO2 monitoring
2. Plenty of fluids
3. Paracetamol
4. Good diet
5. Vit-C, Vit-D, Zinc
6. Ivermectin/ Favipiravir may help (weak antivirals)

SPECIFIC TREATMENT

1. STEROIDS—To all moderate to severe patients with SPO2 <94 any day of Disease.(Better to **avoid in** replication phase, in asymptomatic cases, in mild symptoms but less than 7 days, in cases

with CT score <8 with Disease <7 days, in Viremia phase with normal CRP and CT Chest.)

-Should be started in Pulmonary Phase.

-Methyl Prednisolone 40mg/day I/V is the Steroid of choice and next is Dexa.

2. ENOXAPERIN 40mg or 1mg/Kg or FONDAPARINUX 2.5mg S/C OD doses.
 - a. To all moderate to severe symptomatic patients
 - b. If PR >110
 - c. RR is >24
 - d. SPO2 <94
 - e. If Pneumonia suspected clinically, by Xray or CT Chest start LMWH on day 5 or high risk group day 1.
3. REMDESIVIR- In hospitalized patients (should be started in less than 10 days of onset).

CYTOKINE STORM

1. Unremitting fever
2. Cytopenia
3. Hyperferritinemia
4. Pulmonary involvement
5. Shortness of Breath in second week.
6. Rising CRP >50
7. Worsening CT Chest
8. Fever onset in second week

Experimental drugs- **COLCHICINE**: can be considered in high-risk patients >65 within 24 h of a positive test. The dose is 0.5 mg BD for 3 days, then OD till clinical illness resolves.