

# So you become COVID Positive, What next?

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# How it happens

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- Asymptomatic (24% transmission) and pre-symptomatic (35%) cases in contact from 2 days before symptoms and up to 14 days after the symptoms.
- Mean incubation period after a risky exposure is 5 days.
- Will be positive in 2 days to 2 weeks
- Remain infective for 16 days (including 2 days prior to becoming symptomatic plus 14 days post symptomatic)
- Half of those who get infected gets it from those without symptoms (asymptomatic plus pre symptomatics)

# Covid-19 positive patient

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- Microbiologically positive
- Clinically diagnosed



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CIRCULAR

Subject: Syndromic approach to covid-19 disease

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Viral infections **manifest as varied clinical syndrome**, which are similar to many other pathogens. Hence, it is not possible to confirm the diagnosis of patients with COVID-19 or Influenza infection without a diagnostic test.

And many times, in spite of clinical-radiological features suggestive of COVID-19 disease, the **RT-PCR test, which is considered as Gold Standard Test**, may be negative. With sensitivity and specificity of RT-PCR tests for nasal & throat swab ranging between 60-70%, we may miss many positive cases, i.e **false negative reports. Standard Q COVID-19 Ag rapid antigen detection test**, which is recommended by the ICMR has shown sensitivity (i.e. ability to detect true positives) ranging from 50.6% to 84% and specificity (i.e. ability to detect true negatives) of 99.3 to 100%, after two independent evaluations. Additionally, several retrospective studies have shown that **CT Thorax has greater sensitivity (86%-98%) and lower false-negative rate than RT-PCR.**

With increase in the spread of COVID-19 disease in the country and state along with increase in the number of tests every day, **the percentage of False Negative Reports are increasing** and it's expected to increase further in future.

Hence, a proxy syndrome, called **COVID-19 Like Syndrome (or) COVID-19 Probable case**, has to be used to identify such cases with correlation of clinical features, CT Thorax findings & laboratory investigations, so that we can initiate treatment similar in lines to COVID-19 confirmed cases as early as possible, to reduce the spread of infection, morbidity & mortality.

# Natural course of the disease

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- Mild (80%) disease in most of the positives- home isolation is enough under supervision of a qualified medical practitioner.
- 15% may have moderate disease with increased respiratory rate( $>24/\text{min}$ ) and  $\text{SpO}_2$  ( $<94\%$ ).
- 5% may become severe with respiratory rate( $>30/\text{min}$ ) and  $\text{SpO}_2$  ( $<90\%$ )
- There are several risk factors for serious disease (e.g. cancer, cardiovascular disease, COPD, smoking, hypertension, diabetes, pregnancy, obesity (BMI  $>30$ ), h/o CVA, smoker, kidney disease, use of immune suppressive drugs, age  $>60$  etc.)

# Mild disease

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- URTI symptoms without hypoxia or breathlessness
- Home isolation, indoor mask, hand hygiene and social distancing
- Symptomatic management (antipyretics, antitussives etc)
- Monitor temperature and O<sub>2</sub> saturation
- High fever or lasting for more than 5 days, breathlessness seek medical attention
- Tab Ivermectin (except in pregnant and lactating) for 4 days daily one. (Or Tab HCQ)
- Budesonide MDI if symptoms beyond 5 days

# Moderate disease

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- RR > 24/min, breathlessness, above SpO<sub>2</sub> 90% to less than or equal to 93%
- O<sub>2</sub> through non rebreathing face mask to improve O<sub>2</sub> to 92-96% (88-92 in COPD)
- Awake Prone and sequential position changes every 2 hours
- Anti inflammatory or Immunomodulatory therapy (Methyl prednisolone)
- Anticoagulation where indicated (LMWH)
- Monitoring
  - Clinical, hemodynamics, O<sub>2</sub> need, CXR/ HRCT if worsening, CRP, D-Dimer, every 2 to 3 days, KFT, LFT, IL-6

# Severe disease

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- HFNC high flow nasal cannula
- NIV non invasive ventilation
- Intubation
- Anti inflammatory or Immunomodulatory therapy (Methyl prednisolone)
- Anticoagulation where indicated LMWH
- Monitoring
  - Clinical, hemodynamics, O2 need, CXR/ HRCT, CRP, D-Dimer, every 2 to 3 days, KFT, LFT, IL-6



## Emergency Use Authorization (EUA)/Off label use (based on limited available evidence and only in specific circumstances):

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- ➤ Remdesivir (EUA) may be considered ONLY in patients with a Moderate to severe disease (requiring SUPPLEMENTAL OXYGEN), AND
- No renal or hepatic dysfunction (Not an absolute contradiction), AND
- Who are within 10 days of onset of symptom/s.
- Recommended dose: 200 mg IV on day 1 /100 mg IV OD for next 4 days.
- Not to be used in patients who are NOT on oxygen support or in home settings

## Tocilizumab (Off-label) may be considered when ALL OF THE BELOW CRITERIA ARE MET

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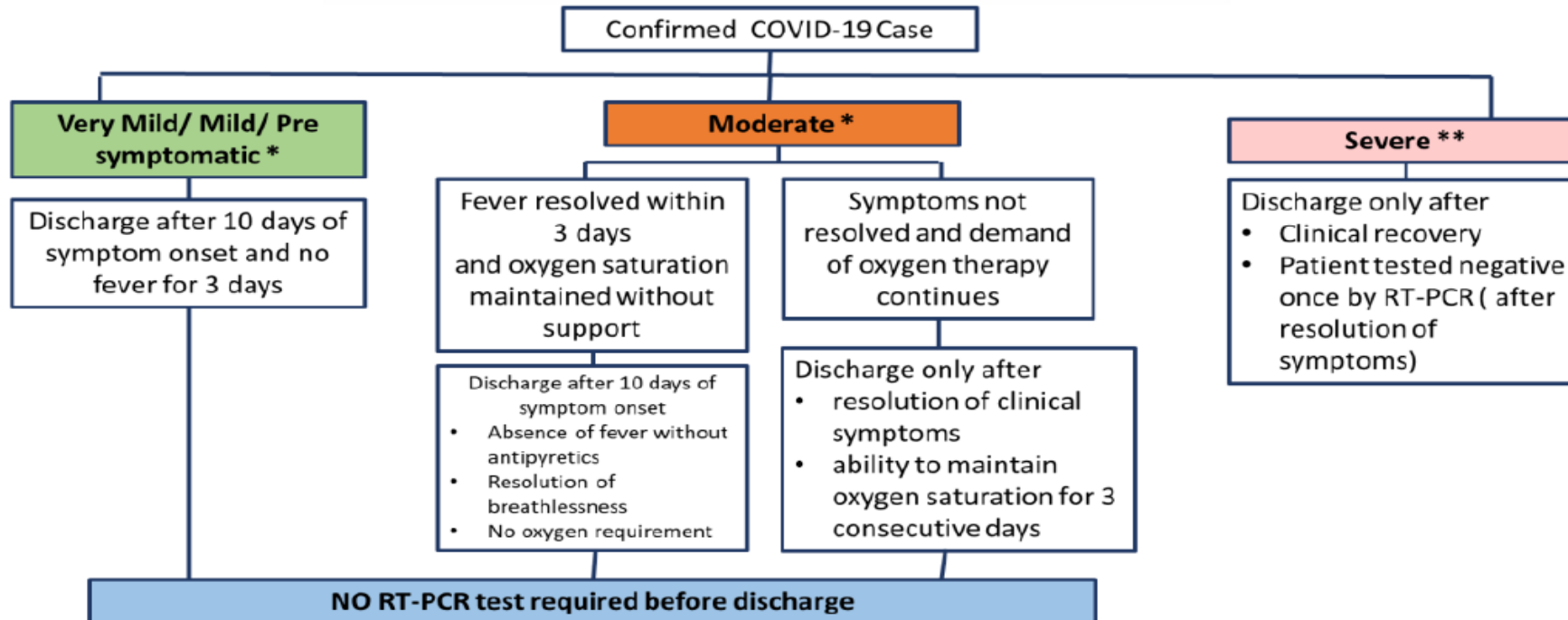
- Presence of severe disease (preferably within 24 to 48 hours of onset of severe disease/ICU admission).
- Significantly raised inflammatory markers (CRP &/or IL-6).
- Not improving despite use of steroids.
- No active bacterial/fungal/tubercular infection.
- Recommended single dose: 4 to 6 mg/kg (400 mg in 60kg adult) in 100 ml NS over 1 hour.

## Convalescent plasma (Off label) may be considered ONLY WHEN FOLLOWING CRITERIA ARE MET

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- Early moderate disease (preferably within 7 days of symptom onset, no use after 7 days).
- Availability of high titre donor plasma (Signal to cut-off ratio (S/O) >3.5 or equivalent depending on the test kit being used).

## Revised Discharge Policy for COVID-19



\*At the time of discharge, the patient will be advised to isolate himself at home and self-monitor their health for further 7 days.

\*\* Clinical categorization of patients as per guidelines (<https://www.mohfw.gov.in/pdf/FinalGuidanceonMangaementofCovidcasesversion2.pdf>)

\*\* including immunocompromised ( HIV patients, transplant recipients, malignancy)

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- Besides managing the covid positive person, there are several public Health actions to be taken by the infected individual, his family, his employers, by the health system to prevent transmission.
  - This will be covered by the next speaker.



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Thank you!