

Guidelines for the Treatment of Severe and Critical Cases of COVID-19

Mahvish Hussain¹, Samina Zaman², Attia Bari³

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COVID-19, the illness caused by severe acute respiratory Coronavirus-2 (SARS-CoV-2), is overwhelming the health care systems globally.¹ Since the first cases were reported in December 2019, SARS-CoV-2 infection with the has become a worldwide pandemic.² However, it affects different people in different ways. Mostly patients develop mild to moderate illness and recover without any serious implications.^{3,4}

Punjab government has issued some guidelines pursuant to the recommendations of Corona Experts Advisory Group (CEAG) in its meeting which was held on 7th May, 2020. Although this document is based on the data till date and is expected to have some dynamic changes.

According to the current guidelines, patients should be given oxygen at upto 15l/min via non breathable mask and ideally through high flow nasal cannula.

They should be encouraged to have a prone position for at least 12 hours/day.⁵ Chloroquine or hydroxy chloroquine is not recommended for patients with severe symptoms and admitted in Intensive Care Unit (ICUs).

Anticoagulation therapy must be given to all admitted patients with severe illness. Only exception is when there is high risk of bleeding. Therefore, monitoring of D-Dimers is essential. If D-Dimers are of less than 1000, then the dose of Enoxaparin is 40mg S/C in OD dose and Rivaroxaban in a dose of 15mg/day orally. However, if D-Dimers is more than 1000, then the dosage of both medicines should be increased.⁶ CBC, INR and D-Dimers have to be monitored on daily basis. Platelet count also has significance. If they are less than 50000 and INR is more than 1.5, then anticoagulant therapy must be withheld.

Tocilizumab is a drug under trial but has been approved from institutional review board and is intimidated to a consultant pulmonologist at Punjab Kidney Liver Institute. This new drug is recommended for those patients who either are going to be on ventilator or already on ventilation. Regarding age, if the patient is either 60 years or above or with some cardiac or lung disease or immunocompromised in the form of organ transplantation in addition to any one of these signs including fever > 39 or hypotension or progressive hypoxemia or sustained respiratory rate > 30 breaths/min. if all the mentioned 3d investigations are present like D-Dimer level > 1000, CRP is > 100 and ferritin level is > 1000 ng/ml.

¹Mahvish Hussain
Assistant Professor,

²Samina Zaman
Professor and Head,

^{1,2}Department of Pathology
Children's Hospital & Institute of Child Health, Lahore – Pakistan.

³ Attia Bari
Associate Professor, Paediatric Medicine,
Children's Hospital & Institute of Child Health, Lahore – Pakistan.

Correspondence to:
Dr. Mahvish Hussain
Assistant Professor of Pathology
Children's Hospital & Institute of Child Health, Lahore – Pakistan.
Email: mahvish66@gmail.com

On the other hand if the patient is < 60 years of age and having any one of these signs including fever >39°C and hypotension, progressive hypoxemia and sustained respiratory rate >30 breaths/min with all of the laboratory parameters including D-Dimer level >1000 and CRP >100 and Ferritin level is > 1000 ng/ml then Tocilizumab is advisable.^{7,8}

Further management includes the addition of steroids in the form of Methylprednisolone 40mg intravenously twice daily either upto 5 days or until CRP returns to normal from >100.⁹ Antibiotics may be added according to the condition. However, Azithromycin is the drug of choice.¹⁰ At present there is no role of antiviral drugs which are available in Pakistan.

CONFLICT OF INTEREST

None to declare.

FINANCIAL DISCLOSURE

None to disclose.

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Author's Contribution

MH, SZ and AB: Drafting of manuscript, contribution to intellectual content. Final approval of manuscript.

The principal author is a Pathologist (MBBS; M. Phil.), working in close liaison with the clinicians managing and/or treating Coronavirus patients. Her research interests include clinicopathological and ancillary studies in solid organ tumours, infectious morphologies and recent updates of Coronavirus treatment with laboratory and radiological correlations.