

COVID-19 (nCorona) Virus Outbreak Control and Prevention State Cell
Health & Family Welfare Department
Government of Kerala

**REVISED ADVISORY TO OPTIMIZE THE EVIDENCE BASED USE OF CONVALESCENT
PLASMA THERAPY [CPT] IN COVID 19**

AND

**AMENDMENT OF COVID-19 TREATMENT GUIDELINES FOR KERALA STATE
NO.31/F2/2020 HEALTH- 15TH AUGUST 2020**

No.31/F2/2020 H&FWD dated 1st December 2020.

PART-I

EVIDENCE BASED USE OF CONVALESCENT PLASMA THERAPY [CPT] IN COVID 19

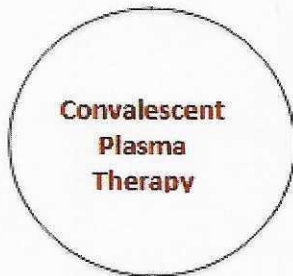
- Benefits of CPT in improving the clinical outcomes, reducing severity of disease, duration of hospitalization and mortality in COVID-19 patients are dependent on the concentration of specific antibodies in convalescent plasma that could neutralize the effects of SARS-CoV-2.
- It is speculated that convalescent plasma having low concentration of specific antibody against SARS-CoV-2 may be less beneficial for treating COVID-19 patients as compared to plasma with high concentration of such antibodies. This advisory therefore embraces the principle that a potential donor for convalescent plasma should have sufficient concentration of antibody working against COVID19 as narrated in the matrix below. It also highlights that presence of antibody against COVID-19 in a potential recipient makes transfusing convalescent plasma a futile intervention.
- The Convalescent-plasma-for-COVID (ConCOVID) study was a randomized trial comparing convalescent plasma with standard of care therapy in patients hospitalized for COVID-19 in the Netherlands. The major observation made in this study was that most of the COVID-19 patients already have high neutralizing antibody titers at hospital admission. The same observation was made in the PLACID trial conducted by ICMR.

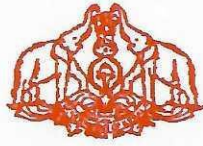


- Screening for antibodies and prioritizing convalescent plasma to risk groups with recent symptom onset will be key to identify patients that may benefit from convalescent plasma. Ideally convalescent plasma should be administered in those patients with moderate disease severity who present within 3 to 7 days of symptom onset not later than 10 days.
- CPT therefore should only be used, for management of COVID-19 when specific criteria as mentioned in the **DECISION MATRIX** are met.

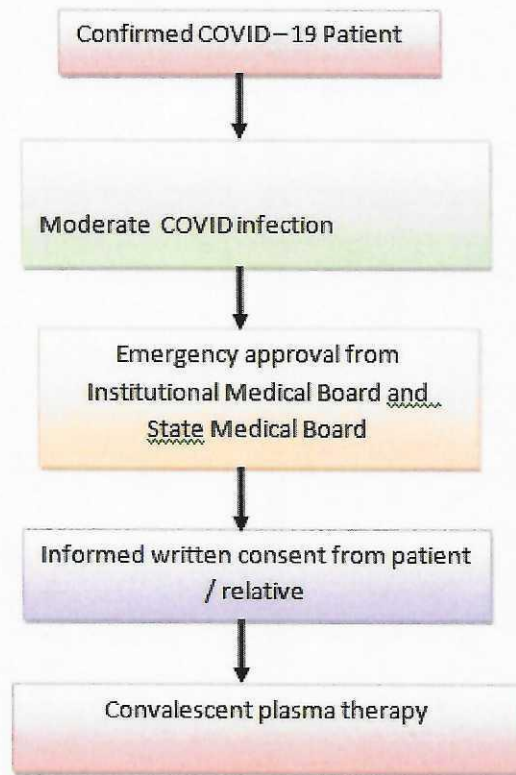
Box 1: Decision Matrix

Potential donor	Potential recipient
Who can donate <ul style="list-style-type: none"> - Men - Women who have never been pregnant 	In early stage of COVID-19 disease
Appropriate Age 18-65 year	3-7 days from onset of symptoms, but not later than 10 days
Appropriate Body Weight >50 kg	No IgG antibody against COVID-19 by appropriate test
Diagnosis COVID-19 RT-PCR positive	Informed Consent
Physical Status After 14 days of symptom resolution ⁷ (testing negative for COVID-19 is not necessary) Screening to rule out ABO incompatibility & blood borne pathogens⁸ such as <ul style="list-style-type: none"> - HIV - HBV - HCV etc. 	
Required Concentration <ul style="list-style-type: none"> - IgG antibody against COVID-19 Titre of 1:640 (ELISA) OR - 13 AU (Absorbance Unit)/mL⁹ (CLIA) OR - Neutralising Antibody Titres of 1:80 (PRNT/MNT) 	





SOP for convalescent plasma administration under compassionate grounds



Dose of convalescent plasma

ABO compatible plasma transfusion of 200ml will be followed by one additional dose of 200ml at 24 hours interval unless contraindicated. Hence the cumulative dose of convalescent plasma for each patient will be 400ml. The second plasma unit will preferably be from a different donor depending on availability of another ABO compatible plasma unit or else plasma unit from the same donor will be issued.



PART-II

AMENDMENT OF COVID-19 TREATMENT GUIDELINES FOR KERALA STATE

Reference: COVID-19 Treatment Guidelines For Kerala State, NO.31/F2/2020 H&FW dated 15th August 2020.

Convalescent therapy component of the existing COVID-19 treatment guidelines for Kerala state (reference: COVID-19 Treatment Guidelines For Kerala State, NO.31/F2/2020 health- 15th August 2020) is hereby amended. The revised advisory to optimize the evidence based use of convalescent plasma therapy [CPT] in COVID 19 (Part-I mentioned above) shall be followed as convalescent plasma therapy in the COVID-19 treatment guidelines for Kerala State.

References:

1. Evidence Based Advisory to address Inappropriate Use of Convalescent Plasma in COVID-19 Patients ICMR ADVISORY 17/11/2020
2. Agarwal A, Mukherjee A, Kumar G et al. Convalescent plasma in the management of moderate covid-19 in adults in India: open label phase II multicentre randomized controlled trial (PLACID Trial). BMJ. 2020 Oct 22;371:m3939. doi: 10.1136/bmj.m3939.
3. USFDA. Investigational COVID-19 Convalescent Plasma: Guidance for Industry [Internet] 2020 [Accessed on 17thNov, 2020]. Available from:<https://www.fda.gov/media/13678/download>.
4. Convalescent plasma for COVID-19: A randomized control trial: Arvind Gharbharan, Carlijn C.E. Jordans, Corine GeurtsvanKessel, Jan G. den Hollander, Faiz Karim et al


Principal Secretary