

Memo No. HFW-28013(99)/6/2020-SBTC SEC-Dept. of H&FW/28

Date: 10/05/2021

Guidelines for Covid-19 Convalescent Plasma (CCP) transfusion as an off-label therapy

It is being observed that while treating Covid-19 patient, physicians are using Convalescent Plasma (CCP) without focusing on the actual indications of CCP transfusion which is not in accordance with the recommendations available in national and international publications. In order to prevent inadvertent use of CCP and also to streamline rational use of CCP, physicians should follow the following guidelines:-

1. CCP should be transfused within 3-7 days from the onset of symptoms and not later than 10 days.
2. CCP may be given in known Covid-19 patients associated with high risk factor like HTN, DM, CKD, CAD, COPD, ILD, OBESITY, SMOKER, AGE>65 years etc. with mild to moderate illness, classified based on respiratory rate, oxygen saturation, lung infiltration in 24-48 hours (standard management protocol for disease severity stratification). Aim is to arrest disease progression and prevent the need of mechanical ventilation.
3. It may be transfused into the patients on low-flow oxygen therapy or in patients on high-flow oxygen therapy requiring not more than 10L/min.
4. Transfusion of CCP in ARDS patients who are on High-Flow Nasal Oxygenation (HFNO), Non-Invasive Ventilation (NIV), Mechanical Ventilation (MV), is not indicated based on the outcome of risk-benefit ratio assessment as per the available national and international publications.
5. ARDS patients (based on HRCT assessment severity score) not already put on high end oxygen device, maintaining oxygen saturation more than 94% may be considered for CCP transfusion.
6. Index patient, still on oxygen therapy with <10L/min heralding requirement of prolonged and high-flow oxygen therapy may be considered promptly to be eligible for CCP transfusion.
7. CCP having optimum titer may be transfused with 2 subsequent doses (200 ml each) to obtain maximum benefit whereas single dose may be given if high-titer CCP is available.
8. Pre-transfusion screening of antibodies in recipient (anti-SARS-CoV-2 IgG antibody) will help in identifying cases devoid of antibodies (anti-SARS-CoV-2 IgG antibodies screening negative) that may get more benefit of CCP transfusion.
9. **ABO & Rh (D) Blood Group Compatibility:** Only ABO group compatibility is required. Rh (D) blood group can be ignored, provided Anti-D antibodies are not present in Rh (D) negative donors.

Compatibility of CCP:

Patient Blood Group	Compatible CCP Donor
A	A, AB
B	B, AB
AB	AB
O	O, A, B, AB

10. Physicians should keep in mind the **possible adverse reactions of CCP transfusions**. Some of them are potentially life-threatening. These are as follows:-
 - Febrile non-hemolytic transfusion reactions (FNHTR)
 - Transfusion related acute lung injury (TRALI)
 - Transfusion related immuno-modulation (TRIM)
 - Anaphylactic reaction
 - Allergic reactions
 - Bacterial sepsis
 - Transfusion associated circulatory overload (TACO)
 - Transfusion associated dyspnea (TAD)
 - Transfusion transmitted diseases (TTD) Etc.

GOVERNMENT OF WEST BENGAL
DEPARTMENT OF HEALTH & FAMILY WELFARE
State Blood Transfusion Council, West Bengal
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References:

1. Libster R, Pérez Marc G, Wappner D, et al; Fundación INFANT–COVID-19 Group. Early High-Titer Plasma Therapy to Prevent Severe Covid-19 in Older Adults. N Engl J Med. 2021 Feb 18; 384(7):610-618.
 2. Joyner MJ, Carter RE, Senefeld JW, et al. Convalescent Plasma Antibody Levels and the Risk of Death from Covid-19. N Engl J Med. 2021 Mar 18; 384(11):1015-1027.
 3. Covid-19 Convalescent Plasma: Interim recommendations from AABB, 10 February 2021
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Director of Health Services
Department of H&FW

Sen 10/05/2021
Director of Medical Education
Department of H&FW

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Copy forwarded for information for taking necessary action to:-

1. MD, NHM
2. Secretary to the Dept. of H&FW and Project Director, WBSAP&CS, Swasthya Bhawan
1. Principal/Director, ... Medical College & Hospital (All)
2. MSVP, ... Medical College & Hospital (All)
3. Jt. DHS, SPSRC, Swasthya Bhawan
4. Jt. DHS (Blood Safety), Swasthya Bhawan
5. DDHS (Admin), Swasthya Bhawan
6. DDHS (Hospital Administration), Swasthya Bhawan
7. Director, IBTM&IH
8. ADHS (Clinical Establishment) – with the direction to circulate this amongst all the health facilities (Both Government and Private) under his jurisdiction.
9. CMOH, ... Districts and Health Districts (All) - with the direction to circulate this amongst all the health facilities (Both Government and Private) under his jurisdiction
10. PS to Secretary, Dept. of H&FW, Swasthya Bhawan
11. State Program Officer, State Blood Cell, NHM
12. AD(Medical), SBTC, WB, Swasthya Bhawan
13. Dy. CMOH-II,.....(All)
14. DTO,(All)
15. Director, RBTC Blood Centre (All)
16. MÓIC, Blood Centre (All)
17. IT Cell, Dept. of H&FW, Swasthya Bhawan - for posting on departmental website.
18. Office Copy

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