

Letter to the Editor

What are the hurdles in the pathway of COVID-19 convalescent plasma collection in low-income nations?



Respected editor,

We just finished reading research article, “Development and implementation of a COVID19 convalescent plasma programme in a middle-income economy.”¹ The challenges in middle-income countries’ Covid-19 convalescent plasma (CCP) collection are skillfully described by the author. We appreciate the writers’ efforts to start CCP collections at their institutions, but sadly, not everyone is as fortunate as they are.

In the past three years, deal with Covid-19 pandemic like a dramatic disease, with developing knowledge and resource constraints, was and still is a significant issue. The development and implementation of a Covid-19 Convalescent Plasma (CCP) Program were not different. Due to the fact that we are from a lower middle-income nation, the CCP collection scheme was quite difficult for us. The process of providing to patients at our clinic begins with the very first notion. When the covid-19 epidemic initially broke out, it was difficult to get the blood centre management’s clearance to begin this CCP collection in any facility. Different locations with different realities will face different challenges in this process. The local Food and Drug Association (FDA) approval process is what comes next, and it involves submitting numerous documents and policy documents. Fortunately, the local FDA gave its consent.

Bloch EM et al. reported their experience of many countries and the hurdles they faced during similar project development and implementation.² We have developed a single protocol for donor selection based on the various guidelines. In contrast to our country, where we can only gather donors who have a history of RT-PCR positive results, Carvalho Duarte GD et colleagues employed any donor who had previously tested positive for SARS-CoV-2 based on IgM, IgG, or RT-PCR.³ We have a large number of potential donors who wish to donate but do not have RT-PCR positive results. Some of them came in front of the CCP contribution since they were self-home confined owing to symptoms, but we were unable to collect their donation for the CCP. The same standards for antibody level were utilized, and we used the Anti-SARS-CoV-2- Chemiluminescence IgG Abbott (Chicago, US) antibody

screen. Prior to the day of donation, all donors were required to submit to mandatory testing for TTIDS, and CCP products were also subjected to the same testing.⁴ Utilizing anticoagulant Citrate Dextrose, Solution A (ACD-A) solution by apheresis techniques, the collection was carried out on Trima Accel (Terumo BCT, USA) equipment. According to donor weight and divided into 2 aliquots, the average volume collected was 450ml (with a range of 400-500ml). Upon collection, the substance is kept at -20°C for six hours before being given to the patient.

Unfortunately, we were unable to successfully collect CCP for a number of patients, and after 9 procedures we had to cease. The biggest obstacle was the requirement for RT-PCR results, which was dictated by local FDA regulations, and then the readiness of eligible donors for CCP donation. In order to protect them, their families are unwilling to take any risks because they are concerned about the donors’ health.⁵

During the COVID-19 pandemic, many healthcare professionals took up the role of the person behind the scenes⁶, but now we must take a step back owing to legal manoeuvres. We applaud the author’s efforts to successfully build and implement the CCP collection programme in their nation and we expect that the establishment of this kind of treatment procedure will be simple to do in lower middle-income nations as well. The main objective of sharing such experiences is to learn from the reports of others and be ready to act when the next challenge knocks on our door.

Conflicts of interest

The authors declare no conflicts of interest.

REFERENCES

1. Carvalho Duarte GD, Simoni V, Ribeiro GN, Haddad R, Moschen M, Morais Toledo RS, et al. Development and implementation of

- a COVID-19 convalescent plasma program in a middle-income economy. *Hematol Transfus Cell Ther.* 2022;44(2):206–12.
2. Bloch EM, Goel R, Wendel S, Burnouf T, Al-Riyami AZ, Ang AL, et al. Guidance for the procurement of COVID-19 convalescent plasma: differences between high- and low-middle-income countries. *Vox Sang.* 2021;116(1):18–35. <https://doi.org/10.1111/vox.12970>.
3. Covid-19 guidelines protocol for compassionate use of convalescent plasma for treatment of patients with severe/critical covid-19 infection in Kerala issue by Covid-19 (nCorona) virus outbreak control and prevention state cell, Health and Family welfare department. Government of Kerala on 27th May 2020. Available at <https://dhs.kerala.gov.in/wp-content/uploads/2020/06/Guideline-Plasma-treatment-Protocol.pdf> last Accessed on 6th July 2022.
4. Brasil. Ministério da Saúde. Caderno de informação: sangue e hemoderivados: dados de 2016. Available from: http://bvsmms.saude.gov.br/bvs/publicacoes/caderno_informacao_sangue_hemoderivados_2016.pdf. Last Accessed on 6th July 2022.
5. Fear of side-effects keeps plasma donors away in Haryana by BySunil Rahar, Rohtak in Hindustan times. On 6th august 2020. Available at <https://www.hindustantimes.com/cities/fear-of-side-effects-keeps-plasma-donors-away-in-haryana/story-05ZotlaR7tzFYBMBfCjjJEK.html> last Access on 6th July 2022.
6. Mukhida S, Khan S, Das NK, Patil R, Vyawahare C. How Long Time to Learn Lessons and Move on From Pandemic? *Med*

J DY Patil Vidyapeeth. 2022;15(6):960. https://doi.org/10.4103/mjdrdypu.mjdrdypu_1004_22.

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