

## Convalescent plasma therapy as a Treatment of Covid-

### *A COVID Care Network (CCN) Awareness Initiative*

#### ***What is Plasma and what are Antibodies?***

The liquid portion of the blood is cumulatively known as **Plasma**. **Antibodies** are the weapons in our body with the help of which our body's immune system fights off various disease-causing sources. These are special protein designed by and within our body in response to an attack by a disease-causing entity (E.g. bacteria, virus, fungi, etc.)

The antibodies are different from plasma in the sense that the proteins are found within our plasma, which makes antibodies a part of our plasma.

#### ***What is Convalescent plasma therapy?***

*Convalescent plasma therapy* is a form of treatment which involves giving the patients the plasma component of the blood, of those people who have fought against and recovered from the disease. The plasma of such patients is rich in antibodies which are specifically directed to the disease in question. A common question which might arise is, '*has convalescent plasma therapy been used before?*' The answer is YES! *Convalescent plasma therapy* has been used previously to treat disease outbreaks like Ebola, Spanish Flu, Diphtheria etc.

#### ***Why Convalescent plasma therapy in COVID 19?***

Despite the entire world's attempt in discovering a vaccine and focusing on the apt treatment for this disease, we still do not have a drug that is fully safe and effective for patients of COVID 19. While some respond to the various modalities of treatment given, many don't, and as a result progress to the severe form of the disease and finally succumb to the underlying organ failures.

The *convalescent plasma therapy* which started initially on an experimental basis, has shown to effectively halt the progression of this disease to severe forms. This is done by timely providing the patients' bodies with the required antibodies to fight with the virus. Many patients who failed to respond to other treatments, have recovered with the help of this therapy.

### Who is Likely to Benefit from this Therapy?

Some of the categories of patients who are likely to significantly benefit from this therapy are as follows:

- i. Patients with severe diseases who are not responding to other treatments and may end up developing ARDS- a fatal lung condition
- ii. Patients with moderate disease at present but with other co-morbidities that predispose them to the risk of progressing to severe SARS-CoV2 infection
- iii. Family members of known cases and health care workers who have been exposed to the virus

### Who can Donate Plasma?

In order for a person to become a plasma donor, it is pertinent that the person has recovered from COVID 19 and is symptom free for at least 14 days. Besides fulfilling these criteria, the other eligibility criteria are as follows:

- Person has to be aged between 18 to 60 years
- Person's body weight must be above 50 kilograms
- The person should not be suffering from cold/ flu
- The person should not be suffering from other chronic and infectious diseases
- The haemoglobin level of the person should be above the minimum cut off
- There should be no tattoo or piercing done in the last 6 months
- For potential female donors, pregnant females not allowed to donate

### What is the Method of Plasma Collection?

After meeting the above mentioned criteria, the donor must donate the plasma from a certified centre. It is mandatory that the ABO blood group of the patient is matching. Apart from these, the following points are important to understand:

- For safety purposes, **a single use disposable apheresis kit is used** most commonly, after insertion of a needle into the donor's veins
- From the blood that is collected, **only the plasma is retained**. Remaining components like RBCs, etc, are returned to the donor's body
- A healthy donor's body is capable of **compensating for this amount of plasma in the next 24-72 hours**



### ***What are the Possible Complications Faced by Donors?***

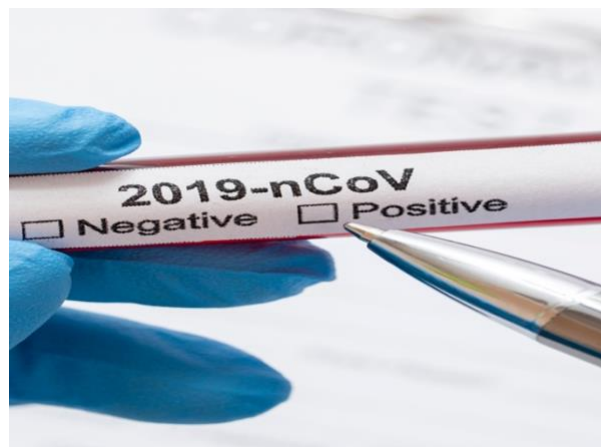
Sometimes, some of the donors may go through the following complications/side effects after plasma donation:

- Due to the venous access, there might be pain, swelling and inflammation of the vein (commonly known as thrombophlebitis)
- Some may feel weak, giddy and experience excessive sweating
- Some might experience vomiting

However, it is important to note that mostly there are minor to no complications faced by the donors. Additionally, ***ALL OF THE ABOVE MENTIONED COMPLICATIONS ARE RARE AND TEMPORARY.***

### ***Where is the Certified Plasma Bank in West Bengal?***

Currently, the certified plasma bank in West Bengal is at ***Medical College and Hospital, Kolkata.***



*COVID Test Sample*

In case of any further query, please contact the following coordinators of COVID Care Network:

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