

Blood Bank Component - The Right Choice

Today if you go to a modern blood bank and ask for blood, you are very likely to be asked a question –“Which Component?” The days Gone are when the prescribed type of transfusion was whole blood. Today blood from the donor is separated into various different types of cells that it is constituted of and these are called blood components.

One unit is used to prepare red blood cells, platelet concentrate and plasma each of which can be given to three different patients and therefore one unit of blood when separated into component can save 3 lives.

Now question can arise “Why component therapy is better?” Various reason as quoted by WHO are:-

- The recipient can be treated with only those blood components that are lacking, reducing the occurrence of adverse transfusion reactions.
- More than one patient can be treated with blood components derived from one donation.
- Therapeutic support for patients with special transfusion requirements can be provided, for example, plasma that often is not directly needed for transfusion can be used manufacturing of Factor VIII concentrate for Hemophilia A patients;
- Improved quality and functional capacity of each component when varied storage conditions and shelf lives were applied.

Apart from all these facts National Blood Policy of India clearly states that component therapy should be facilitated and encouraged. Very few Blood banks in India have component separation facility. Need of the hour is to adopt this procedure and have 100% component separation.

Shri Swami Samarth Blood Bank is having component separation facility , strategically located in the close vicinity of the Accident and Emergency Department and is easily accessible to people from outside the hospital as well as from the In-patient services departments.

The high quality services which we offer are :

- Round the clock availability of Blood and Blood Components services.
- Only of its kind in the Kokan region to have integrated facility for error free and fast transfusion services
- Provision of all the common and specialized Blood & Components like Red blood cell, Platelets, Cryoprecipitate, Fresh frozen plasma etc.
- Specialization in providing Single Donor Platelets, pack RBCs and Plasma using latest, highly time efficient and most sophisticated machine by Teremo Penpol Inc, Germany

In line with the National Blood Policy and guidelines by the Maharashtra State Blood Transfusion Council, Shri Swami Samarth Blood Bank is committed to blood donation by total voluntary blood donations and campaign to increase the awareness amongst the masses, regarding voluntary blood donation and its benefits to the community.

It is important for the Blood Banks to ensure a safe and adequate blood supply for the people. The laboratory tests performed on the collected blood for safe transfusion are :

- * Hepatitis B & C
- * Malarial parasite
- * HIV I & II (AIDS)
- * Venereal disease (Syphilis)
- * Blood Group
- * Before issuing blood, compatibility tests (cross matching) is done.

We have the following facilities apart from whole blood like,

- Packed cells.
- Fresh Frozen Plasma.
- Random Donor Platelets.

Packed Cells :

Usage - In case of various types of anemia like aplastic anemia, iron deficiency, hemolytic anemia, Blood loss due to bleeding etc.

Single Donor Platelets :

Usage - Low platelets count due to decrease in platelet production like aplastic anemia , hematological malignancies ,following radiotherapy or chemotherapy, clotting disorders, Dengue fever, Burn cases etc or due to increased platelet destruction like ITP, DIC, alloimmune thrombocytopenia, drug induced thrombocytopenia, septicemia. Hereditary disorders of platelet dysfunction and massive blood transfusion.

Fresh Frozen Plasma :

The fluid portion of the blood containing the essential proteins like (albumins, globulins etc), when frozen and preserved is called as Fresh Frozen Plasma (FFP)

Usage – RTA,. liver disease, massive transfusion, DIC, Deficiencies of factor II,VII,IX,X, Inherited coagulation factor deficiency ect.

How long can the blood be stored at blood bank?

Whole blood can be stored for 35 days. The various blood components can be stored as under.

- * Platelet Concentrate - 5 days
- * Packed Cells - 42 days
- * Fresh Frozen Plasma – 1 year
- * Cryo Anti Hemophilic Factor – 1 year

Deep Freezer (-40°C and -80°C) are used to preserve plasma, related blood components while platelets are store in agitator machine at 20°C for proper storage.