

Blood Component Separation



A donor unit is separated within 6 hours of collection into 4 basic components: Packed red cells (RBC's) Platelet concentrate, Fresh Frozen Plasma and Cryoprecipitate. The separation is done by using special sophisticated equipment and actual separation is carried out under strict aseptic conditions using a laminar flow. A stand by UPS is provided so that the processing of components are done perfectly.

Storage of Blood Components



Whole blood and Packed red cells are stored in special Blood Bank refrigerators at a temperature of 2-6°C. They can be kept for a period of 35 to 42 days depending upon the anti-coagulant used. Platelets can be kept at 22°C with constant agitation for 5 days. Fresh Frozen Plasma is stored at - 30°C

for one year and Cryoprecipitate can be preserved at - 70°C for one year. Whole blood stored at 4°C loses its coagulation factors activity and platelets within a few hours.

Issue of Components

Over the last decade, blood transfusion has been rendered safer by transfusing only the needed component to the patients, namely, Packed



Red Cells to anaemic patients or to those undergoing surgery, Platelets for those children and adults with low platelet counts due to diseases like VHF ITP cancer, medication or snake bite, Plasma for patients with burns, liver disease, kidney disease etc and Cryo precipitate for Haemophilia. Apart from providing the right component, this rational approach helps in the optimal use of scarce blood resources while minimising unwanted reactions.

Depending upon the component, blood is transported to distant places usually in thermocol boxes with or without ice. Care is taken to see that the ice does not come in direct contact with the blood component. Full instructions are given to the people collecting the component from the Blood Bank regarding proper and safe transport.

Data Management System

All relevant data pertaining to donors, recipients, test results, stock, reservations, issues, component manufacture and shelf life etc. are stored in a computer.

Our aim is to provide safe blood components for all patients who require them, but the demand is more than the number of blood donors. Therefore the Blood Bank is actively involved in conducting blood donation camps, but even so there is a pressing need for more voluntary blood donors.

Shanthi Social Services

MEDICAL CENTRE - BLOOD BANK - Licence No. 319

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Licence No. 319

24 HOURS SERVICE



DONATE BLOOD SAVE LIFE

About our **bloodbank**

Shanthi SOCIAL SERVICES, a Public Charitable Trust founded in the year 1996 by the Promoter of Shanthi Gears Limited, with the main object of servicing the economically weaker section of the Public, particularly in the field of Education and Medical needs.

As a part of our Public Services, we have recently (March 2011) opened a Blood Bank to supply Whole Blood and Components in the Medical Centre (Next to Shanthi IOCL Petrol Bunk, Pharmacy and Canteen) by installing latest equipments.

Working of the Blood Bank

We provide service for 24 hours, 365 days of the year, to hospitals and nursing homes. We have engaged experienced full time Medical Officer and qualified Technicians. Our aim is "Courtesy and respect to the life givers". We have regular donors who are life line of our blood supplies.

Present status of the Blood Bank



We have facilities for supplying whole Blood and its components as FFP, Packed Red Cells, Platelets and also Cryo precipitate. All the latest equipments and instruments we have including ID centrifuge 6S will give full quality control. We firmly believe in the pursuit of excellence in quality in supplying the blood components and whole blood which will fully meet the requirements and needs of our patients.

What Next

The Blood Bank wants to develop this as a Full Fledged TRANSFUSION CENTRE approved by the Tamil Nadu Govt. Transfusion Council in future.

Your Role

This Blood Bank is for the Service of the Public of our City and the patients in need. We look forward for the kind co-operation of all of you to show your support for such a noble cause.

Medical Examination

Any healthy adult both male or female can donate blood whose age is between 18 to 60 years. Hemoglobin should not be less than 12.5g/dl., pulse 70 and 90/minute with no irregularities. Temperature - Normal (oral temp. not exceeding 37.5°C.) Body weight not less than 45kg. Medical examination is done for eligibility of the donors by the blood bank medical officer.

Collection of Blood



Blood is collected in pleasant surroundings and air - conditioned comfort under aseptic conditions. Each donation is monitored by an instrument called a haemomixer which ensures proper mixing of the blood with the anti - coagulant and measures the exact volume of blood collected, 350 ml or 450 ml. The instrument also displays the actual time taken for collection, which should not exceed 10 minutes. This is absolutely essential to ensure the quality of the final product components.

Donor Recovery

After donation, the donor is provided with hot/cool drinks and snacks and kept under observation for a period of 15 minutes in a separate room for any untoward reaction.

Grouping and cross matching

All blood groups are detected by advanced techniques which include cell grouping as well as serum grouping. Using these methods, the group can be cross - checked to avoid errors. The cross-match or compatibility testing is one of the most important procedures carried out in the blood bank. It is not enough if the donor and recipient belong to the same group. There are many other blood group antigens present on the red cell membranes apart from A, B, and O groups and the corresponding antibodies in the serum can give rise to severe reactions in the patient and can even cause death. Therefore, a full panel cross-match using saline, 22% bovine albumin and anti-human globulin (Coomb's serum) is carried out before any unit is issued. This takes approximately 60-90 minutes. The latest Gel Technology is also used for these tests and it takes only 25 mts. An additional stand by UPS is provided with to ensure the processing of components is done perfectly.



Testing for Transmissible Diseases



Each unit of blood is screened by internationally approved methods for Hepatitis B, Hepatitis C, HIV (1&2) viruses, syphilis, Malaria and SGPT (a liver function test which indirectly indicates liver damage). The entire testing process is done by ELISA or rapid methods by highly qualified personnel. This extensive screening process takes about 5-6 hours approximately.