# SSS bloodbank

As a part of our Public Services, Our Blood Bank is functioning from the year 2011 to supply whole Blood and Components in the Medical Centre (Next to Shanthi IOCL Petrol Bunk, Pharmacy and Canteen) by installing latest equipments.

Our aim is to provide quality service to needy people especially for the economically weaker section of the public.



# Working of the Blood Bank

The Blood Bank is functioning as a Full Fledged TRANSFUSION CENTRE approved by the Tamil Nadu Govt. Transfusion Council with RBTC status.

We provide service for 24 hours 365 days of the year to hospitals and nursing homes. We have engaged experienced full time senior Medical Officer and qualified Technicians. Best haemovigilance system is maintained up to date. 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. Quality Assurance and quality control systems are done to ensure that the blood product are tested and "Safe unit of Blood" as safe as possible is given for our patients. This is carried out with implementation, maintenance and, monitoring of the quality assurance system.



#### 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 in 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 products components.



# **Donor Recovery**

After donation, the donor is provided with 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 0 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 used for these tests and it takes only 25 minutes. An additional stand by UPS is provided to ensure the processing of components is done perfectly without interruption.



# Automatic Component Extractor. TACE II +

A Latest & most sophisticated Automatic component Extractor TACE II+ is installed in the Blood Bank By using this machine platelet concentrates are prepared by Buffy coat and more yield of platelets are achieved. Leuko reduced platelets & packed cells and



standadrised high quality blood products are the benefits by using this method and reduced risk of FNHTR and reduced platelet activation, volume of plasma is also more.



# 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 FILARIA. The entire testing process is done by ELISA method using the most sophisticated automatic analyser BIORAD EVOLIS

TWIN PLUS, which gives correct and precise readings by highly qualified personnel. This screening process takes about 3 hours approximately.









# **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 equipments 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 renderd 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 (around 50-100kms)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, shelf life and camp details etc. are maintained and managed in Health care ERP systems online 24x7



# Your Role

This Blood Bank is for the service of the Public and hence we look forward for the kind co-operation of all of you to show your support for such a noble cause.

Our aim is to provide safe blood and 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.



A Registered Public Charitable Trust

BLOOD BANK DIVISION
DESIGNATED REGIONAL BLOOD TRANSFUSION CENTRE
MEDICAL CENTRE - BLOOD BANK - Licence No. 319

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