

## BLOOD SAFETY

MBTS achieves blood safety and adequacy through encouraging voluntary non-remunerated blood donation among low risk population groups; the encouraging of these to become regular blood donors; the testing of donated blood for transfusion transmissible infectious agents to international standards; the making of blood products; ensuring that quality assurance systems are in place in all aspects of MBTS' operations and the promotion of the appropriate clinical use of blood and blood products.

The MBTS has a **Public Relations Department (PRD)** responsible for recruiting and retaining suitable blood donors and a **Blood Donor Department (BDD)** for collecting blood from voluntary non-remunerated blood donors. The PRD arranges and gives motivational talks which include information on suitability criteria for blood donation. Potential blood donors are encouraged not to donate if they engage in risky behaviours, have complaints or physical signs of infectious disease, among others. Information leaflets are given to potential donors. On the day for blood donation, a nurse sits down with the prospective blood donor and engages him/her in conversation whose main focus is to determine the likelihood of the collected blood being safe. If the prospective blood donor's behaviour is risky, he/she will be deferred from donating. Already known high risk population groups are not targeted for blood donation recruitment. These groups include long distance truck drivers, prisoners and sex workers, for example.

Collected blood is tested using highly sensitive reagents and techniques. Blood is tested using ELISA for HIV (p24 Antigen and antibodies to HIV 1&2); for Hepatitis B surface Antigen, for Hepatitis C (anti-HCV antibodies), TPHA for syphilis and blood films for malaria. The use of ELISA techniques, Abbott Murex reagents and the testing for HIV p24 antigen has improved the sensitivity of test results. P24 antigen, hepatitis C and malaria were not routinely being tested for in donated blood before the establishment of MBTS.

The other aspects of blood safety include testing for ABO and Rhesus blood groups. MBTS tests using the tube technique; screens for routine antibodies and week antibodies using specialised panel of cells. A Cold Chain system ensures proper storage and transportation of blood to users at various hospitals.

The MBTS now routinely makes and supplies a range of products which include packed red cells (for adults and paediatric use), whole blood, fresh frozen plasma and cryoprecipitate. Availability of these products has increased the choice for the best product for transfusion, as determined by the patient's condition. It has also allowed the treatment of conditions for which expensive imports were previously used; e.g for patients with inherited bleeding disorders such as haemophilia.

Quality assurance systems in place ensure that set standards are adhered to at all times. All crucial procedures at MBTS are done according to standard operating procedures (SOPs). A Quality Department is responsible for enforcing adherence to laid down standards. Regular audits are undertaken to see that blood, blood products and test reagents meet international specifications (WHO, SANBS, IFRCRCS).

MBTS also encourages appropriate clinical use of blood to prevent unnecessary transfusions and its potential risks. This is being done through Hospital Transfusion Committees and supporting the development of blood and blood products transfusion guidelines.

## **OTHER HIV AND AIDS PREVENTION ACTIVITIES**

MBTS encourages all blood donors to know their test results and encourages youth aged 16 – 25 years to form blood donation clubs called Club 25. Members of Club 25 pledge to donate blood at least 25 times in their lifetime. This sets up targets and purpose for them to achieve and helps them to go through adolescence and grow into safe and informed young adults. Apart from assisting in ensuring the safety of blood, these approaches promote safe life-style behaviour and contribute to the behavioural means of HIV prevention in the country.