

Introduction:

Blood transfusion involves the infusion of whole blood or a blood component from one individual (the donor) to another (the recipient). It is an essential part of modern health care; used correctly; it can save life and improve health.

Without blood transfusion, effective management of severe trauma, major elective surgery and serious obstetric complication is not possible. Furthermore there is a key role for transfusion in the management of serious medical and pediatric condition such as gastrointestinal bleeding, cancer, leukemia, hemophilia, congenital hemolytic anemia, and life threatening malaria. To create a hospital without a blood bank, and planes for where the blood is to come from, is to invite sever difficulties in the daily operation of that institution. The reality is that no hospital can function effectively without a blood supply. If such a supply does not exist, the physician and the patients families will find ways, often uncontrolled and dangerous, to make blood available.

Blood bank:

Is a facility where blood can be stored in preparation for transfusion.

National blood transfusion policies:

Should, therefore, include a reasonable plan to ensure the viability of essential blood and blood components.

The supply of blood and blood products should be safe, accessible at reasonable cost and adequate to meet national needs.

Blood centre:

Is a building or location specifically dedicated to blood collection, component production, testing, storage, and distribution.

The term- blood banking- is being replaced by the term –transfusion medicine – in order to stress on increasing role of patient care and evaluation of clinical results in this specialty. Transfusion medicine is multidisciplinary specialty concerned with the proper selection and utilization of blood components as well as the removed of blood or blood components in the treatment or prevention of disease.

Blood transfusion service (BTS):

Is any organization designed to make blood and blood components available for transfusion. A well organized blood transfusion service is a prerequisite for the safe and effective use of blood and blood products.

The typical (BTS) is involved in donor recruitment, blood collection, laboratory testing, component production, storage and distribution of blood products, and provide a service to multiple hospitals.

Serves of Blood bank:

- 1- Linking between hospitals and national blood transfusion center.
- 2- Temporarily storage of blood and components reserved from national blood transfusion center for emergency.
- 3- Compatibility testing.
- 4- Quality assurance.
- 5- Teaching purpose.

Blood donation :

- 1- Donor staff for team.
- 2- Requirement.
- 3- Volunteers.

- **Donor Selection**

- ✚ ***DONOR RECRUITMENT***

- ❖ Blood should be accepted only from voluntary, non-remunerated, low risk, safe and healthy donors.

- ❖ The blood bank should educate donors prior to collection of blood regarding the risk of transfusion transmissible infections.
- ❖ Pre-donation counseling by trained staff should be made available maintaining privacy and confidentiality. **Pre-donation information should include:**
 - 1- Modes of transmission leading to risk behavior and self exclusion for patient's safety.
 - 2- Alternative testing site.
 - 3- Tests carried out on donated blood.
 - 4- Confidentiality of test results.
- ❖ **Need for honest answers in view of window period.**
 - 1- Questionnaire should be prepared in English and local languages which is simple and easy to understand to be answered by the donor.
 - 2- Demographic details such as name and address of donor, date and time of donor selection and donation should be registered.
 - 3- Consent should be obtained in writing from the donors after explaining the procedure.