

**THE UNITED REPUBLIC OF TANZANIA**

**MINISTRY OF HEALTH**



**TANZANIA NATIONAL BLOOD TRANSFUSION  
SERVICE  
POLICY GUIDELINES**

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## **FOREWORD**

The availability of safe blood and blood products is one of the government's strategies aimed at combating the spread of HIV infection. The Ministry of Health (MoH) through its ongoing comprehensive health sector reforms has identified blood safety as one of the strategic priorities aimed at meeting the health demands of all people. The need for the availability of adequate supply of safe blood for transfusion has led to the establishment of a nationally coordinated Blood Transfusion Services. This will ensure standardized and high quality blood transfusion services that will prevent the spread of HIV and other blood transmissible infections.

Blood Transfusion Medicine is a sensitive discipline with a wide diversity of activities, ranging from *blood donor recruitment and retention, blood collection, processing, distribution, training on appropriate use of blood and its components to research-work*. Blood and blood products if not administered properly can be hazardous to the lives of recipients. Therefore this discipline requires policy guidelines to regulate the correct procedures.

The aim of these blood policy guidelines is to guide all players towards better practices in blood transfusion and will assist all participating institutions to use common and harmonized standards. The technical excellence of blood transfusion services will be ensured and the demand for adequate safe blood and blood products in Tanzania will be met.

I acknowledge and appreciate the dedication of all technical experts, local and international partners who contributed in the development of these blood transfusion services policy guidelines.

Above all I would like to thank all Tanzanians who come forward to give their blood voluntarily in order to save the lives of others.

**Mariam J. Mwaffisi**  
**PERMANENT SECRETARY**

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**ABBREVIATIONS**

AIDS	=	Acquired Immunodeficiency Syndrome
BTS	=	Blood Transfusion Service
CBO	=	Community Based Organization
CDC	=	Centers for Disease Control and Prevention
DBDC	=	District Blood Distribution Centre
ELISA	=	Enzyme Linked Immunosorbent Assay
EQAS	=	External Quality Assessment Scheme
EU	=	European Union
FBO	=	Faith Based Organization
HIV	=	Human Immunodeficiency Virus
ICRC	=	International Committee of Red Cross and Red Crescent Societies
IEC	=	Information Education Communication
IFRC	=	International Federation of Red Cross and Red Crescent Societies
ISBT	=	International Society of Blood Transfusion
MNH	=	Muhimbili National Hospital
MUCHS	=	Muhimbili University College of Health Sciences
MoH	=	Ministry of Health
NACP	=	National AIDS Control Programme
NBTS	=	National Blood Transfusion Service
NGO	=	Non-Governmental Organization
PLT	=	Principal Laboratory Technologist
RBTC	=	Regional Blood Transfusion Centre
SOPs	=	Standard Operating Procedures
TPDF	=	Tanzania Peoples' Defence Forces
TRCS	=	Tanzania Red Cross Society
TTIs	=	Transfusion Transmissible Infections
WHA	=	World Health Assembly
WHO	=	World Health Organization
ZBTC	=	Zonal Blood Transfusion Centre
ZBTS	=	Zonal Blood Transfusion Services

## INTRODUCTION

The National Blood Transfusion Service Policy Guidelines aim at providing guidance towards the establishment of well-organized blood transfusion services, in line with the World Health Assembly Resolution WHA 28.72 (1972) that urges all member states to develop comprehensive and well-coordinated blood transfusion service based on *voluntary, non-remunerated blood donation*.

A well-organized Blood Transfusion Service (BTS) is a vital component of any health-care delivery system. An effective strategy for Blood Safety is required for elimination of transfusion-transmitted infections and for provision of safe and adequate blood transfusion services to the people. The main component of an effective strategy include collection of blood only from voluntary, non-remunerated blood donors, screening for all transfusion transmitted infections and reduction of unnecessary transfusion.

Currently, Blood Transfusion Service in Tanzania are highly decentralized and lack many vital resources like manpower, adequate infrastructure and financial capability. The main problems that hinder a standard blood transfusion system in the country are:

- ❑ Uncoordinated management; standards of services vary from hospital to hospital.
- ❑ The dependence on family/replacement blood donations.
- ❑ Hospital based blood donations.
- ❑ Extremely limited availability and utilization of blood components.
- ❑ Shortage of trained professionals in the field of blood transfusion medicine.

For quality, safety and efficacy of blood and blood products and for effective clinical use of blood it is necessary to have well-equipped blood centres with adequate infrastructure and trained personnel.

Therefore, the need for modification and change in blood transfusion service has necessitated the formulation of a nationally coordinated Blood Transfusion Service that shall have the responsibility of ensuring adequate safe blood for all people in need.

### **VISION OF THE TANZANIA NATIONAL BLOOD TRANSFUSION SERVICE**

The vision of the Tanzania National Blood Transfusion Service is to be a well-coordinated non-profit professional organization responsible for collection and supply of adequate safe blood for transfusion, based on high quality production processes designed for maximum safety and efficiency.

### **MISSION OF THE TANZANIA NATIONAL BLOOD TRANSFUSION SERVICE**

The Mission of the Tanzania National Blood Transfusion Service is to ensure easily accessible and adequate supply of safe and high quality blood and blood components, collected from voluntary non-remunerated regular blood donors in well equipped premises, stored and transported under optimum conditions and finally transfused, under supervision of trained personnel, into all who need it irrespective of their economic or social status through comprehensive and quality management.

## OBJECTIVES OF THE TANZANIA NATIONAL BLOOD TRANSFUSION SERVICE POLICY GUIDELINES:

The following policy guidelines objectives will govern the achievement of the above Vision and Mission of the Tanzania National Blood Transfusion Service policy.

1. To establish a sustainable nationally coordinated blood transfusion service, backed with necessary policy and standards, which will ensure the availability of adequate and safe blood and blood products in Tanzania.
2. To create a sustainable mechanism that will ensure availability of adequate financial resources for smooth running of the Blood Transfusion Service in the entire country.
3. To recruit adequate personnel and strengthen the manpower through Human Resource Development to meet specific requirements of the NBTS activities.
4. To launch extensive awareness programs and promote recruitment and retention of healthy, voluntary, non-remunerated, regular blood donors so as to ensure adequate availability of safe blood.
5. To introduce an effective mechanism for maintaining quality, efficiency and effectiveness of the National Transfusion Service activities.
6. To encourage appropriate clinical use of blood and blood products.
7. To promote and encourage Research in the field of Transfusion Medicine and related technology.
8. To establish a legal framework for blood transfusion safety in Tanzania.

## STRATEGIES

The following strategies as elaborated below shall be used in order to meet the above objectives.

### POLICY OBJECTIVE – 1:

**To establish a sustainable nationally coordinated blood transfusion service, backed with necessary policy and standards that will ensure the availability of adequate and safe blood and blood products in Tanzania.**

#### **STRATEGIES:**

- 1.1 The Ministry of Health (MoH) shall establish a National Blood Transfusion Service (NBTS) that shall be a non-profit professional organization responsible for collection and supply of adequate safe blood for transfusion in the country.

- 1.2 NBTS will initially be run as a program of the Ministry of Health and latter it will operate as an Executive Agency of the Ministry of Health after fulfillment of the requirements as stipulated in the *Executive Agency Act of 1997*.
- 1.3 The NBTS activities shall be implemented on Zonal basis under the Zonal Blood Transfusion Centres (ZBTC).
- 1.4 The National Blood Transfusion Centre (NBTC) shall be the headquarter of NBTS and shall be the policy formulating apex body in relation to all matters pertaining to operations of all Zonal Blood Transfusion Centres (ZBTC).
- 1.5 The Zonal Blood Transfusion Centres (ZBTC) shall be responsible for implementation of the blood transfusion activities as per recommendations of the National Blood Transfusion Centre.
- 1.6 Mechanisms for better co-ordination between NBTC and ZBTCs shall be developed by the NBTC.
- 1.7 The Zonal Blood Transfusion Centres shall organize the blood transfusion services through the network of Regional Blood Transfusion Centres (RBTC), District Transfusion Centres (DBTC) and Tanzania Red Cross Society (TRCS) and monitor their functioning.
- 1.8 All hospitals linked to the Regional Centres will be assisted for any blood requirement and shall be audited by the Regional Centres. RBTCs will also help the Zonal Blood Transfusion Centre in collecting the data from respective regions.
- 1.9 The Zonal Blood Transfusion Centre shall act as a referral centre for the regions assigned to it. The Regional Centres shall be guided by recommendations of the Zonal Blood Transfusion Centre.
- 1.10 The practice of replacement donors shall be gradually phased out in a time bound programme to achieve 100% voluntary non-remunerated blood donation program.
- 1.11 Mechanisms shall be developed to monitor and periodically evaluate the implementation of the National Blood Transfusion Programme in the country.
- 1.12** Due to the special requirements of Armed Forces and civilian communities surrounding the Army camps, The Tanzania Peoples Defence Force (TPDF) will carry out all blood Transfusion Service activities in all military units. Military Blood Transfusion Centres will be established for centralized blood processing and distribution. The blood collected shall be supplied to military hospitals and nearby public hospitals. There will be a close collaboration between NBTS and TPDF in terms of logistics and technical support.



## **POLICY OBJECTIVE – 2:**

**To create a sustainable mechanism that will ensure availability of adequate financial resources for smooth running of the Blood Transfusion Service in the entire country.**

### **STRATEGIES:**

- 2.1 The National Blood Transfusion Centres shall be financially supported/strengthened by Government through the Ministry of Health. The Ministry of Health shall allocate a budget to NBTC for running the National Blood Transfusion Service activities.
- 2.2 Efforts shall be directed to make the blood transfusion service viable through non-profit recovery as well as subsidized systems.
- 2.3 Efforts shall be made to raise funds for the blood transfusion service through national, international and bilateral support for making it self-sufficient.
- 2.4 Efforts shall be made to raise funds for the blood transfusion service for making it self-sufficient.
- 2.5 The mechanism shall be introduced in government sector to route the amounts received through cost recovery of blood/blood components to the blood centres for improving their services.

## **POLICY OBJECTIVE - 3:**

**To recruit adequate personnel and strengthen the manpower through Human Resource Development to meet specific requirements of the NBTS.**

### **STRATEGIES:**

- 3.1 Adequate staff will be employed/recruited in order to meet specific requirements of NBTS activities.
- 3.2 In-service training programs shall be organized for all categories of personnel working in blood transfusion centres.
- 3.3 Appropriate modules for training of NBTS officers shall be developed to facilitate regular and uniform training programs to be conducted.
- 3.4 Short orientation training cum advocacy programs on donor motivation and recruitment shall be organized for Community Based Organizations (CBOs)/NGOs who wish to participate in Voluntary Blood Donor Recruitment Programme.
- 3.5 Inter-country and intra-country exchange for training and experience of personnel associated with blood centres shall be encouraged to improve quality of Blood Transfusion Service.
- 3.6 Government shall create a separate cadre and opportunities for promotions for suitably trained medical and para-medical personnel working in blood transfusion services.

#### **POLICY OBJECTIVE – 4:**

**To launch extensive awareness programs and promote recruitment and retention of healthy, voluntary, non-remunerated, regular blood donors so as to ensure adequate availability of safe blood.**

##### **STRATEGIES:**

- 4.1 Efforts shall be directed towards recruitment and retention of voluntary, non-remunerated blood donors through education and awareness programs.
- 4.2 There shall not be any coercion in enrolling blood donors.
- 4.3 The replacement donors shall be encouraged to become regular voluntary blood donors.
- 4.4 Activities of organizations like Red Cross, NGOs, FBOs and others shall be encouraged to increase awareness about blood donation amongst masses.
- 4.5 All blood banks shall have donor recruitment officer/donor organizer.
- 4.6 Each blood centre shall create and update a blood donor's directory that shall be kept confidential.
- 4.7 Specific IEC campaigns shall be launched for promotion of voluntary blood donation and generation of awareness regarding dangers of blood from paid donors and procurement of blood from unauthorized blood banks/laboratories.
- 4.8 Enrolment of safe donors shall be ensured.
- 4.9 Rigid adherence to donor screening guidelines shall be enforced.
- 4.10 At blood donation sites, appropriate attention shall be paid on donor enrolment and screening in accordance with national standards instead of number of units to be collected.
- 4.11 Pre and post donation counseling shall be offered to each potential donor.
- 4.12 Zonal Blood Transfusion Centres shall recognize the services of regular voluntary non-remunerated blood donors and donor organizers appropriately.
- 4.13 National/Zonal Blood Transfusion Centres shall develop and launch an IEC campaign using all channels of communication including mass-media for promotion of voluntary blood donation and generation of awareness regarding dangers of blood from paid donors and procurement of blood from unauthorized blood banks/laboratories.
- 4.14 National/Zonal Blood Transfusion Centres shall involve other sectors in promoting voluntary blood donations.

#### **POLICY OBJECTIVE - 5:**

**To introduce an effective mechanism for maintaining quality, efficiency and effectiveness of the National Transfusion Service activities.**

##### **STRATEGIES:**

- 5.1 A Quality System Scheme shall be introduced in all blood transfusion centres.
- 5.2 The National Blood Transfusion Centre shall develop generic Standard Operating Procedures as guidelines for the blood centres.
- 5.3 The enforcement of the blood and blood products standards shall be the responsibility of NBTS Quality System Manager.

- 5.4 Quality Assurance Officer shall be designated at each Zonal Blood Centre to ensure quality control of Blood and its components.
- 5.5 Every blood centre shall introduce an internal audit system to be followed by corrective actions to reduce variations in Standard Operating Procedures (SOPs) as a part of continuous improvement program.
- 5.6 Regular workshops on the subject of quality assurance shall be conducted to update the personnel working in blood centres.
- 5.7 There should be annual quality system workshops to personnel working in BTS.
- 5.8 An External Quality Assessment Scheme (EQAS) through the referral laboratories approved by the National Blood Transfusion Centre shall be introduced to assist participating centres in achieving higher standards and uniformity.
- 5.9 NBTC shall identify a centre of national repute for quality control of consumables, reagents and plasma products.
- 5.10 Use of automation shall be encouraged to manage higher workload with increased efficiency.
- 5.11 A mechanism for transfer of technology shall be developed to ensure the availability of state-of-the-art technology from out side the country.
- 5.12 All blood centres shall adhere to the national bio-safety guidelines for disposal of bio-hazardous waste.

#### **POLICY OBJECTIVE - 6:**

**To encourage appropriate clinical use of blood and blood products.**

#### **STRATEGIES:**

- 6.1 Blood shall be used only when necessary. Blood and blood products shall be transfused only to treat conditions leading to significant morbidity and mortality that cannot be prevented or treated effectively by other means.
- 6.2 National Guidelines on "**Clinical use of Blood**" shall be made available and updated as required from time to time.
- 6.3 Effective and efficient clinical use of blood shall be promoted in accordance with guidelines.
- 6.4 Ministry of Health shall ensure that the Hospital Transfusion Committees are established in all hospitals to guide, monitor and audit clinical use of blood.
- 6.5 Wherever appropriate, use of plasma expanders shall be promoted to minimize the use of blood.
- 6.6 Alternative strategies to minimize the need for transfusion shall be promoted.
- 6.7 Education and training in effective clinical use of blood shall be organized. National Blood Transfusion Centre shall organize seminars and workshops in collaboration with professional bodies at regular intervals for all clinicians working in public as well as private sector on the clinical use of blood in the country.
- 6.8 Only a medical practitioner shall prescribe Blood or blood components.
- 6.9 Availability of blood components shall be ensured through the network of Zonal centres and satellite centres by creating adequate number of blood components units.

- 6.10 Appropriate steps shall be taken to increase the availability of plasma fractions as per the need of the country through expanding the capacity of existing centre and establishing new centres in the country.
- 6.11 Adequate facilities for transporting blood and blood products, including proper cold-chain maintenance, shall be made available to ensure appropriate management of blood supply.
- 6.12 Guidelines for management of blood supply during natural and man-made disasters shall be made available.

**POLICY OBJECTIVE - 7:**

**To promote and encourage Research in the field of Transfusion Medicine and related technology.**

**STRATEGIES:**

- 7.1 Funds shall be made available to NBTC/ZBTCs to facilitate research in blood transfusion medicine and related technology.
- 7.2 NBTS technical resource core group at national level shall be created to co-ordinate research development in the country. This group shall be responsible for recommending implementation of new technologies and procedures.
- 7.3 Various research initiatives on issues related to Blood Transfusion shall be encouraged.
- 7.4 Operational research on various aspects such as knowledge and attitude among blood donors, needs assessment, etc. shall be promoted.
- 7.5 Electronic information and management systems shall be developed, to be used by all the centres regularly to facilitate networking.

**POLICY OBJECTIVE - 8:**

**To establish a legal framework for blood transfusion safety in Tanzania.**

**STRATEGIES:**

- 8.1 The Tanzania National Blood Transfusion Service (NBTS) shall be the sole organization with the mandate for collection, processing and supplying of blood for transfusion in the country.
- 8.2 Stand-alone and private blood processing centres/blood banks shall not be allowed.
- 8.3 Only Blood Transfusion Centres and organizations that are under NBTS shall be permitted to supply blood and blood products to satellite centres/hospitals.
- 8.4 NBTS shall develop guidelines defining prohibition of profiteering in blood transfusion services.
- 8.5 Trading in blood i.e. sale and purchase of blood shall be prohibited.
- 8.6 Paid blood donation shall be abolished: It will be an offence for a paid donor to operate in the disguise of a replacement donor.
- 8.7 Imported Blood shall only be allowed for emergency reasons: All blood and its products imported into the country shall conform to the national standards and shall be subjected to national screening processes.

- 8.8 Rules and guidelines will be developed to guard the safety of blood donors and blood recipients.
- 8.9 Guidelines will be developed to accredit health facilities that will be eligible to transfuse blood and blood components.
- 8.10 Rules will be developed to introduce stringent penalties for unauthorized/irregular practices in blood transfusion services.