



**REPUBLIC OF LEBANON**  
**MINISTRY OF PUBLIC HEALTH**

# **National Policy and Strategic Framework for Blood Transfusion Services in Lebanon**

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## Acronyms

<b>LRC</b>	Lebanese Red Cross
<b>MoPH</b>	Ministry of Public Health
<b>LCBT</b>	Lebanese Committee for Blood Transfusion
<b>VNRBD</b>	Voluntary Non-Remunerated Blood Donors
<b>BTS</b>	Blood transfusion service
<b>HBB</b>	Hospital Blood Banks
<b>NGO</b>	Non-governmental organizations

## I. Introduction:

Safe and effective use of blood and blood products depends on a well-organized blood transfusion service with quality systems in all areas. An adequate and safe blood supply should be an integral part of any national health policy and a country's health infrastructure.

WHO recommends that all activities relating to blood collection, screening, processing, storage and distribution be coordinated at the national level through effective organization and integrated supply networks. The national blood safety system should be governed by the national blood policy and legislative framework to promote uniformity in both the application of standards and the quality and safety of blood and blood products

Many recipients of blood products might be infected by viruses like HIV, hepatitis B and C viruses, syphilis and other infectious agents. The global burden of disease due to unsafe blood transfusion can be eliminated or substantially reduced through an integrated national strategy for blood transfusion which includes:

- Collection of blood from voluntary non-remunerated blood donors from low-risk populations
- Testing of all donated blood, including screening for transfusion-transmissible infections, blood grouping and compatibility testing
- Establishment of a nationally-coordinated blood transfusion service

The blood supply in Lebanon relies on the service provided by over 140 private and governmental hospitals as well as the service provided by the LRC Blood Transfusion Services (BTS). The present service covers the increasing demand/needs mainly by family/ replacement donations since there is no national blood bank providing available units.

The purpose of this document is to formulate a National Strategic Framework for the years 2022-2025 in order to enhance and build up the Blood Transfusion Services of the country. This document is intended to guide the wide range of partners who are or could be involved in the BTS strengthening efforts. It provides fundamental principles and identifies clear priority areas, which need to be focused in a coordinated manner in order to ensure a successful outcome of implementation within a set time frame.

## II. Mission and Vision:

The Ministry of Public Health in Lebanon (MoPH) is promoting a culture of learning and continuous improvement in relation to quality of care of which patient safety is one essential element. This process is conducted in an open, transparent, consistent and large participation of all stakeholders. Blood transfusion is a public health issue linked directly to the patient safety and thus is under the supervision of national authorities. Regulations and laws are set up by the MoPH in order to establish an efficient national blood program which constitutes an essential component of an effective health system. It aims at ensuring safety, availability and adequacy of blood and blood components for all patients, in all health institutions in the country, both public and private.

## III. Objectives and Scope of Application:

The objectives of this National blood policy shall be the development of a National Blood Program that strives to meet, in equitable manner all the patient population needs of blood components throughout the country on a regular basis, with optimal safety and efficacy.

This policy shall also provide a strategic framework and directions for blood transfusion services under the following priority areas:

1. Enhancement of the capacity of the Blood Transfusion Services in terms of manpower and skills
2. Comprehensive quality management system to cover the entire transfusion process
3. Authorization, licensing, qualification, accreditation and inspection of Blood transfusion centres and Hospital Blood Banks (HBB)
4. Implementation of a national hemovigilance system
5. Promotion, motivation, recruitment and retention of voluntary non remunerated blood donors.
6. Promotion of scientific knowledge and guidelines (e.g optimal use of blood and blood products) through meetings, forums and diplomas

This document shall apply to the collection and testing of blood and blood components and their processing, storage, and distribution when intended for transfusion but does not apply to blood stem cells.

## IV. Stakeholders

The following stakeholders concerned by this policy have been identified:

### 1. The Ministry of Public Health (MoPH)

The MoPH has a fundamental regulatory role in ensuring the safety and adequacy of the supply of blood and blood products in the country and takes every measure to secure Government commitment and support for the National Blood Program. Consequently, the MoPH sets out what is expected, monitors the extent to which those expectations are met, and takes actions when they are not.

### 2. Lebanese Committee of Blood Transfusion (LCBT)

The LCBT has been nominated by the ministerial decision no. 124/1 dated 2/2/2011. The committee is composed of experienced professionals in the transfusion field and experts from the MoPH. It is headed by the director general of health and has a national coordinator. Its mission is to:

- Review the current national blood transfusion practices and suggest a new organizational framework
- Establish policies and procedures based on the adopted organizational scheme
- Follow-up on the implementation in line with international experience.
- Suggest and recommend on measures to organize and improve the blood transfusion process at national level harmonized with international recommendations for good practices.
- Establish training programs for human resources working in transfusion field

### 3. Hospital Blood Banks (HBB):

HBB are hospital units which perform all or part of the transfusion activities, collection, testing, preparation, storage, distribution, and compatibility tests. Currently, 2 identified different types of hospitals blood banks are operating at the national level:

- Centers responsible for all aspects of the transfusion activities: collection, testing, processing, storage, and distribution of blood and blood components intended for transfusion.
- Centers which store and distribute and perform compatibility tests on blood and blood components for hospital based transfusion activities.

### 4. Lebanese Red Cross Blood Transfusion Services (LRC):

The LRC is the largest national humanitarian organization in Lebanon. The LRC has developed its work, services and activities for more than 50 years. Its scope of services today includes major activities in blood transfusion and distribution.

The mission of the LRC Blood Transfusion Services (BTS) is to ensure self-sufficiency in terms of blood products (by supporting HBB inventories) throughout the Lebanese territory through the LRC blood bank and its 13 branches in the six governorates of Lebanon which perform collection, testing, preparation, storage and distribution of blood components.

LRC is undertaking a development plan to ensure quality performance of the services at the blood banks, complete the technical set-up of the blood banks and promote blood donations to the public as per the objectives cited in agreement signed between the MoPH and the LRC.

### 5. Non-Governmental organizations(NGO):

Non-governmental organizations play a vital role in communication relating to blood donation and donor recruitment. Recognized by a homogeneous public and representative of the Lebanese population, they can be efficient in recruiting new donors inaccessible by other transfusion agents on the national territory

The scope of their activities and their direct contact with patients and donors gives them the advantage of being recognized by many people.

Activities currently undertaken and related to donor recruitment include:

- events organization (mobile collections, fundraising...) in collaboration with hospitals,
- communication through social medias and clubs at the universities and schools
- maintain database on voluntary donors



## V. Priority Areas objectives:

In order to reach its objectives, the MoPH articulates the present strategy around the 5 priority areas objectives as follows:

### 1. Priority area objective: Enhancement of the capacity of the Blood Transfusion Services in terms of manpower and skills

For the purpose of ensuring that every unit of blood or blood components has been harmoniously collected, tested, processed, stored, and distributed in compliance with the applicable laws and in line with the international good practices, the strategy shall encompass a training program on the good transfusion practices guidelines deployed along with a national education program in Transfusion.

This will warrant an efficient management of the Blood Transfusion services which will lead to the rationalization of the available resources and quality improvement of the provided services.

Harmonization of the blood transfusion information systems will facilitate the standardized reporting of specific indicators to the MoPH and enhance decision-making process and the implementation of the hemovigilance system.

Credentials shall be identified to ensure that the Personnel directly involved in collection, testing, processing, storage, and distribution of human blood and blood components shall be qualified to perform those tasks and be provided with timely, relevant, and regularly updated training.

### 2. Priority areas objective: Quality Improvement

A quality improvement system shall be made available by the MoPH based on the Good transfusion practice guidelines.

Accreditation of hospital blood banks and LRC blood services is part of the hospital accreditation program initiated by the MoPH that carry a chapter for blood banks. On another hand, a qualification labelling program shall be established based on the good transfusion practices. The qualification process defined by the MoPH is specific for blood bank activities and concern HBB and LRC blood services. Audit visits shall be realized on regular basis and in the event of any serious adverse event or reaction as appropriate.

### 3. Priority areas objective: enhancement and enforcement of the legal framework in terms of authorization, licensing, qualification, accreditation and inspection (networking/emergency situation) of blood transfusion LRC centers and Hospital Blood Banks

The MoPH ensures that activities relating to the collection and testing of blood and blood components, and their preparation, storage, and distribution are undertaken only by authorized blood transfusion centers.

The MoPH shall ensure that an appropriate mechanism for authorising, accrediting or licensing exists to ensure that the activities of LRC blood services and HBB are performed in accordance with the current national guidelines

The MoPH shall organise inspection and control measures to ensure the compliance of LRC blood services and HBB with the provisions of this strategy and good transfusion practice guidelines.

The current legal framework shall be adapted to encompass the cited improvements introduced to the system. It should include in addition a legal framework for exchanging blood components between HBB or between LRC blood services and HBB (national network/scheme) and for facing disasters and emergency situations (preparedness plan).

### 4. Priority areas objective: Hemovigilance

In order to enhance the safety aspect of the transfusion a hemovigilance system shall be established and implemented. The system shall rely on both traceability and declaration of patients' serious adverse events and reactions according to the procedures set by MoPH.

The harmonization of the blood transfusion information systems is essential in facilitating standardized reporting and successful implementation of the hemovigilance system.

### 5. Priority areas objective 5: motivation, recruitment and retention of voluntary non-remunerated blood donors /(VNRBD) program

The Ministry of Public Health shall establish and implement a national strategy to shift the blood supply from family to voluntary blood supply system via Blood Donation committee encompassing all stakeholders.

Due recognition and appreciation shall be given to regular voluntary non-remunerated blood donors for their humanitarian act. Replacement donation shall be discouraged and gradually be replaced by voluntary donation. For that purpose, blood donor associations as well as LRC Blood services shall be encouraged in each region and urged to develop a successful network.

Donor recruitment and retention guidelines shall be developed ensuring adequate, appropriate donor care and satisfaction, as well as donor safety.

## VI. Monitoring and evaluation

#	Objective	Indicator	Target 2025
1	Enhancement of the capacity of the blood transfusion services in terms of manpower and skills	1.1 % of Transfusion centers directors who received training on Good transfusion practices 1.2 % of transfusion centers employees with appropriate qualifications 1.3 % of transfusion centers sending transfusion data to MOPH 1.4 Implementation of national diploma for directors and technicians	1.1 100% 1.2 100% 1.3 100% 1.4 Implemented
2	Quality improvement	2.1 % HBB and BTS that passed hospital accreditation 2.2 % HBB and BTS (LRC...) that passed the qualification labeling program	2.1 100% 2.2 100%
3	Enhancement and enforcement of the legal framework	3.1 New organizational scheme developed with a clear data on which HBB are licensed and perform all transfusion activities and which HBB perform only storage and distribution activities on emergency based needs. 3.2 % of HBB compliant to the new organisational scheme 3.3 % of hospital Blood Banks which established a partnership with LRC Blood services or another hospital blood bank ( <i>availability of legal framework for exchanging blood components</i> )	3.1 Completed 3.2 100% 3.3 100%
4	Hemovigilance	4.1 % of hospitals reporting recipient adverse reactions to MOPH	4.1 100%
5	Motivation, recruitment and retention of voluntary-non remunerated blood donors	5.1 % blood units collected from VNRBD in hospitals 5.2 % blood units collected from VNRBD in LRC	5.1 >30% 5.2 >60%

## VII. Timeline

The strategy is a 4-year national strategy for Blood Transfusion Services 2022-2025.