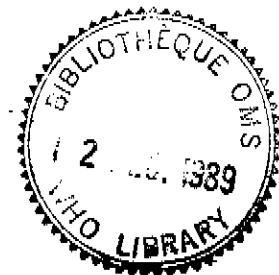

GLOBAL BLOOD SAFETY INITIATIVE

MINIMUM TARGETS FOR BLOOD TRANSFUSION SERVICES

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WORLD
HEALTH
ORGANIZATION

GLOBAL
PROGRAMME
ON AIDS

Health
Laboratory
Technology Unit



League of Red Cross
and Red Crescent
Societies

Minimum targets for blood transfusion services

The Global Blood Safety Initiative (GBSI) is a cooperative endeavour to support the development of safe and effective blood transfusion services in all countries. Core participants are the World Health Organization's Global Programme on AIDS (WHO/GPA) and unit of Health Laboratory Technology (LAB), the League of Red Cross and Red Crescent Societies (LRCS), the United Nations Development Programme (UNDP) and the International Society of Blood Transfusion (ISBT). The Initiative is also supported by The World Federation of Hemophilia and other bilateral and multilateral development agencies and nongovernmental organizations.

This document was reviewed and endorsed by the GBSI Consultation on Developing and Strengthening Blood Transfusion Services, held in Geneva from 20 to 22 March 1989. A total of 23 specialists in blood transfusion medicine and haematology from 17 countries participated in the consultation. The participants are listed on the last page.

Blood transfusion services are multifaceted and may be established or developed at different levels of sophistication. This outline of minimum targets is to be regarded as the basic requirements to ensure a safe blood supply. It is hoped that many countries will be able to surpass these targets immediately or after a period of development at the basic level.

1. Organization/Administrative

- 1.1 National (or regional) blood transfusion advisory committee(s) should be formed.
- 1.2 A national blood policy should be formulated.
- 1.3 The post(s) of Director(s) of the transfusion services should be established and appointments made. These may be national or regional, depending on the size of the country and organization of the transfusion services.
- 1.4 Supporting professional, administrative and ancillary staff must be adequate in numbers and levels of training and a career structure for professional staff should be defined.
- 1.5 Responsibility for operation of the services should be clearly defined (e.g., government itself or delegated).
- 1.6 Armed Forces transfusion services should collaborate closely or be integrated with national transfusion services in order to pool resources and to respond better to national emergencies.
- 1.7 There should be assurance of capital costs and recurrent funding.

2. Blood donations

- 2.1 The principle of voluntary nonremunerated donations should be accepted and practised.
- 2.2 Donor recruitment should be on a scheduled basis for at least part of the blood supply, with plans for expansion, and there should be a system to encourage repeat donations.

If family or "replacement" donors are used their donations should be to the transfusion service and not "directed" to named recipients. Care must be taken to ensure that this is not a hidden (remunerated) system.

- 2.3 There should be a consistent and reliable system for donor selection and deferral.
- 2.4 Procedures should be clearly set out for caring for the donor before, during and after donations and for referrals where necessary.
- 2.5 Records should be kept which will allow tracing of donors without breaching confidentiality. At the basic level these will be operated manually.

3. Blood collection centre

- 3.1 The basic equipment should include a refrigerator for storing red cells, with a reliable monitoring system for ensuring that the temperature is maintained between 2° and 6°C.

(NB: a list of basic equipment and consumables is provided in the WHO unpublished document WHO/GPA/INF/89.15, *Essential consumables and equipment for a blood transfusion service.*)

- 3.2 ABO grouping should include cell and serum typing of all units with appropriate internal controls.
- 3.3 Rh(D) typing should include appropriate internal controls.
- 3.4 Screening for human immunodeficiency virus, hepatitis viruses, syphilis and other infectious agents transmissible by blood should be performed as indicated by the national blood policy based on sound epidemiological studies.
- 3.5 Verifiable records should be kept. There should be a labelling system indicating that testing has been done on all blood units and that those units issued meet the agreed criteria.
- 3.6 An inventory system for blood collected, in storage and issued, should be installed. If blood is returned, there must be documentation of the storage conditions, including storage temperature and the integrity of each unit.
- 3.7 A system of quality assurance should be installed. The minimum requirement is a manual of standard operating procedures and internal quality controls for all tests.

4. Hospital transfusion service

- 4.1 The basic equipment should include a refrigerator as indicated in 3.1.
- 4.2 The targets for ABO grouping and Rh(D) typing are as has been already indicated above in 3.2 and 3.3. All recipient and donor samples must be grouped.

- 4.3 Compatibility testing should be performed in tubes at room temperature to detect ABO incompatibility, and at 37°C in a system which will reliably detect coating (IgG) antibodies, such as the anti-human globulin method.

Compatibility testing should be carried out on all blood transfused even if, in a life-threatening emergency, this is after it has been issued.

- 4.4 Blood should be screened for infectious agents as indicated in 3.4 if this has not been done previously.
- 4.5 There must be a clinical record of all transfusions and a system for recording and investigating post transfusion reactions.
- 4.6 Guidelines for transfusion of blood and blood derivatives should be defined and propagated to all health-care professionals in clinical charge of patients.
- 4.7 Crystalloids and synthetic colloids must be available for the emergency treatment of acute blood loss (see WHO unpublished document, WHO/GPA/INF/88.5, *Guidelines for treatment of acute blood loss*).
- 4.8 The blood transfusion service should assist in developing red cell salvage and autologous transfusion procedures.

5. Training and education

There must be educational programmes (including continuing education) for all health-care professionals involved in blood transfusion.

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