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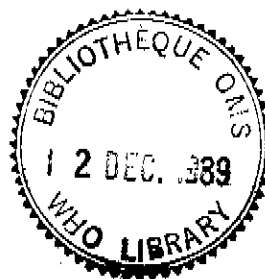
# GLOBAL BLOOD SAFETY INITIATIVE

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## CONSENSUS STATEMENT ON ACCELERATED STRATEGIES TO REDUCE THE RISK OF TRANSMISSION OF HIV BY BLOOD TRANSFUSION

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WORLD  
HEALTH  
ORGANIZATION

GLOBAL  
PROGRAMME  
ON AIDS

Health  
Laboratory  
Technology Unit



League of Red Cross  
and Red Crescent  
Societies

# Consensus statement on accelerated strategies to reduce the risk of transmission of HIV by blood transfusion

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 consensus statement was produced 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.

## Introduction

The risk of transmission of human immunodeficiency virus (HIV) and other agents by blood and blood products can best be controlled in the longer term by establishing blood transfusion services that provide for the collection and banking of blood and the application of quality assurance procedures on a routine and sustained basis.

In countries where the development of such integrated blood transfusion services cannot be readily achieved, it is necessary to develop short-term or accelerated strategies to reduce the risk of transmission of HIV through blood.

Several rapid tests are now available and in some situations these can fulfil a major role in HIV screening. However, they must be supported by active plans to recruit safer donors and by stringent policies to ensure the appropriate use of blood, with the aim of reducing the number of unnecessary transfusions.

## 1. Safer donors

Accelerated plans to recruit safer donors should include:

- 1.1 Promotion of voluntary non-remunerated blood donation and the establishment of panels of regular donors in accordance with the World Health Assembly resolution WHA28.72.
- 1.2 Schemes to motivate and recruit donors from low risk community groups and, where feasible, provide for pre-donation physical examination of donors with exclusion of those who show any risk features.

- 1.3 Introduction of effective mechanisms for self-exclusion of donors and ensuring that confidential pre- and post-HIV testing advice is available.
- 1.4 Provisions for appropriately trained donor recruiters.
- 1.5 Facilitation of the availability of locally appropriate recruitment material, both oral and written, to elicit an honest response from donors to key questions of eligibility.
- 1.6 Linkage with AIDS education campaigns highlighting their relevance to blood donation and safe transfusion.
- 1.7 Coordination with national plans for AIDS prevention and control, particularly in the provision of alternative HIV testing sites for the general public and in the use of AIDS support services for blood donors if required.

## 2. Safer blood for transfusion

- 2.1 Policies for screening blood for HIV before transfusion should be determined at the national level, taking into consideration local prevalence rates and other health priorities.
- 2.2 Where decisions are taken not to test all donated blood routinely, the situation should be closely monitored by means of sentinel surveillance.
- 2.3 Many local factors need to be taken into account in determining the most appropriate system or combination of systems for HIV screening.

- 2.4 Simple, rapid and reliable screening tests are now available, and their use should be considered when blood is required urgently or, particularly, when the number of donations is small and adequate blood stocks are not available. They also should be considered where the use of Enzyme Linked Immunosorbent Assay (ELISA) systems is not feasible or sustainable.
- 2.5 As with all other test systems, rapid screening tests must be subject to effective quality assurance.
- 2.6 Screening of pooled serum samples may be considered in areas where low prevalence of HIV is adequately documented provided the following requirements are met:
- the test system should be validated locally by the laboratory prior to use. (Information may be obtained from the WHO Global Programme on AIDS on the characteristics of commercially available assays and their suitability for pooled serum screening.);
  - the test system should be one in which dilution of serum does not compromise sensitivity;
  - stringent measures must be taken to ensure reliable sample identification;
  - the pool should not include more than five individual serum samples;
  - changes in HIV prevalence rates should be closely monitored.
- 2.7 Where it is decided to test for HIV-1 and HIV-2, combination test systems may be used, provided the sensitivity and specificity for detection of antibodies to both viruses are maintained.
- 2.8 A quality assurance scheme must be devised, introduced and maintained to ensure good laboratory practice, including:
- proper documentation of all donations;
  - validation of the sensitivity, specificity and reproducibility of new batches of test kits;
  - strict adherence to the recommended procedures;
  - repeat testing of positive samples and, in areas in which the prevalence of HIV infection is high, repeat testing of randomly selected, initially seronegative samples;
  - discarding donations corresponding to repeatedly positive test results;
  - the use of appropriate test and internal controls;
  - participation in regular proficiency testing exercises linked to an appropriate reference centre.
- 2.9 Components should be prepared only from blood of the safest donors. This is particularly important in areas of high HIV prevalence, in which the possibility of false negative tests is increased.
- 2.10 Every effort must be made to ensure that patients receive only correctly tested, non-reactive, properly documented donations.
- 2.11 Introduction of screening for HIV may often facilitate testing for other infectious agents causing disorders such as hepatitis and Chagas disease. This should be undertaken wherever possible and as appropriate to local circumstances.

### 3. Fewer transfusions

Blood transfusion can be life saving but it also carries serious potential dangers, including the possibility of transmission of infective agents (e.g., HIV and hepatitis viruses), immune-mediated problems (e.g., intravascular haemolysis), and circulatory overload. Moreover, blood is expensive and is a scarce human resource.

- 3.1 Blood and blood products should be administered only when they are necessary for saving life or for preventing major morbidity (see WHO unpublished document WHO/GPA/INF/89.18, *Guidelines on the appropriate use of blood*) and all efforts must be made to avoid the use of blood for conditions otherwise treatable and preventable by alternative health strategies (e.g., improved antenatal care and improved management of haemoglobinopathies).
- 3.2 Safer alternatives to the use of blood should be actively exploited whenever appropriate and possible; for example, the use of:
- haematinics, antimalarial and antihelminthic drugs for patients with anaemia;
  - crystalloid solutions and synthetic colloids which are safer plasma volume expanders than blood and can be more cost-effective in the management of haemorrhage;
  - preoperatively donated blood for autologous transfusion in elective surgery;
  - intraoperative blood salvage;
  - phototherapy for the management of neonatal jaundice.

3.3 Rapid and effective implementation of the above strategies and policies requires a national mechanism such as a national blood transfusion advisory committee. Where no national mechanism exists, such a committee should be established as a priority. In countries where such a body is in existence, the minister of health should review urgently its composition and if necessary redefine and implement accelerated strategies for rational and reduced use of blood by the following:

- establish regional and local guidelines for rational use of blood and blood components;
- support the implementation of these guidelines by appropriate educational policies for doctors and medical students;
- establish mechanisms to monitor the pattern of usage of blood and its components;
- actively monitor the implementation of the guidelines and the efficacy of educational policies by continuous assessment and by promoting the establishment of hospital blood transfusion committees, or equivalent audit systems;
- promote production and use of the essential blood components, i.e., red cells, plasma, cryoprecipitate and platelets, to ensure the optimal use of each donated unit of blood and to provide alternatives to high technology plasma derivatives;
- ensure wide availability and effective distribution of crystalloids and synthetic colloids;
- ensure active interaction between blood transfusion staff and the users of blood to improve quality of transfusion practice;
- actively encourage the strengthening of primary health care programmes and other measures which can reduce the need for blood transfusion.

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