

**Kingdom of Cambodia
Nation Religion King**



**National Blood Policy
and
Priority Strategies
for
the Development of the National Blood
Transfusion
Services
(2003-2007)**

PREFACE

The Royal Government of the Kingdom of Cambodia recognises that blood transfusion is an important tool of modern health care. It saves the lives of many Cambodians every year. The main beneficiaries are women who haemorrhage during pregnancy or childbirth, severely anaemic children affected by malaria or dengue haemorrhagic fever, landmine and trauma victims.

At the same time, the Ministry of Health (MOH) has always considered it important to ensure that transfused blood does not harm the health of the recipient or transmit any infectious agents, such as those causing syphilis, hepatitis and malaria. Today, the MOH considers blood safety more crucial than ever because of the high prevalence and incidence of HIV, consequences of the HIV epidemic affecting the Country.

It is for this reason that Blood Safety has been included as one of the main strategic priorities in the control of the HIV epidemic by the National Center for HIV/AIDS and STDs in its policy paper.

In 1991, a decree issued by the MOH officially gave to the National Blood Transfusion Center (NBTC) the responsibility for organising and supervising the collection and supply of blood throughout the country. Later in 1994, also by government decree, the MOH adopted a policy of promotion of voluntarily non-remunerated blood donation.

This document has been designed to clarify a number of policies and regulations concerning the collection, fractionation, screening, storage and distribution of human blood and blood products, and to explain the principal strategies that are necessary to develop the National Blood Transfusion Services (NBTS) during the next five years.

The policies, regulations and strategies described in this document are in accord with the strategic plan for the development of NBTS developed at the beginning of the year 2000. This policy paper has as its aim the strengthening in the mid-long term of four basic policies: 1) adequate blood collection and selection of blood donors; 2) strengthening blood screening and quality control; 3) optimal use of blood, blood products and blood substitutes; 4) the institutional development and long-term sustainability of the NBTS and 5) the implementation of a self-supporting financial system for the National Blood Transfusion Services.

GENERAL POLICY STATEMENTS:

The collection, fractionation, storage and distribution of human blood and blood products in the Kingdom of Cambodia are governed by this policy and regulations that constitute the Cambodian National Blood Transfusion Services (NBTS) as a division of the Ministry of Health.

The specific regulations and modality of functioning of NBTS are included in a technical circular to be emanated by the Ministry of Health. The implementation of these policies and regulations will ensure that blood and blood products will not harm the health of the individual blood donor nor the health of the patient, recipient of the transfusion.

The Ministry of Health recognises that all patients have the right to receive blood transfusion without discrimination on the basis of race, religion, culture, nationality or social and medical status.

In the same way, blood donors must be treated in an ethical manner that respects confidentiality. They should be assured that their donations are being used for patients in need and that products are being used optimally in hospitals.

The Ministry of Health adheres to the Resolution 28.72 of the 28th World Health Assembly in 1975 and decides that the NBTS will be based only on **voluntary, non-remunerated blood donors**¹ to ensure a sufficient supply of safe blood and blood products to meet the needs of both the public and private hospital sectors.

The activities of NBTS will be exercised exclusively in public blood transfusion centers authorised by the MOH, which will retain the right to close all non-authorized blood centers.

Blood and blood products will not constitute a source of profit. However the cost occasioned by the recruitment of blood donors, the collection, the laboratory analyses, the fractionation, the storage and the distribution of blood and blood products can be included in a cost-recovery system implemented by NBTC under the supervision of MOH. In all circumstances, the costs will be determined by the MOH, which will fix the price for provision of blood units initially to all private health care establishments. This cost will be uniform throughout the National territory.

¹ « Voluntary non-remunerated blood donors » are defined as persons who give blood or other blood components of their own free will and receive no payment for it, either in the form of cash, or in kind which could be considered a substitute for money, including time off work, other than reasonably needed for the donation and travel. Small tokens, refreshments and reimbursement of direct travel costs are compatible with voluntary, non-remunerated blood donation.

POLICY 1: Adequate blood collection and selection of blood donors.

Following the recommendations of the Resolution 28.72 of the 28th World Health Assembly of 1975, the Royal Government of Cambodia adheres to the principle that all activities developed by the NBTS will be based only on voluntary, non-remunerated blood donors. As there is a chronic shortage of blood available for transfusions, it is important to promote blood donation among the population and especially among identified HIV low-risk groups of the population, such as students and Buddhist monks.

Since the re-organisation of the NBTS in 1990, the Ministry of Health has promoted a policy of recruitment of donors based on voluntary non-remunerated blood donations. This has been expressed in the article 7 of the Prakas of March 1994 regarding blood transfusion services.

However, in spite of several educational campaigns to promote voluntary blood donation implemented during recent years, the proportion of voluntary blood donations remains very low. This chronic shortage of blood available in stock has forced a dependence on family-of-the-patient blood donations in order to be able to supply the required blood to hospitals.

This situation has also fuelled a marketing of blood through paid or “professional” blood donors. These paid donors are normally undercover in the group of “family-of-the-patient” blood donors.

The analysis of the data concerning the different types of blood donors has shown that the blood collected from these paid “professional” donors is several times more likely to be infected with blood-borne infections like HIV, syphilis and hepatitis C. This analysis of data from blood donations has also facilitated the identification of other HIV high-risk groups among blood donors like the military and the police.

Is for this reason that, with the aim to reduce the risk of transmission of HIV and other infections through blood and blood products, the NBTC has stopped organising mobile-team blood collections among these identified high HIV-risk groups. Today, the NBTC actively organises mobile blood collections among HIV low-risk groups of the population like high-school and college students and Buddhist monks.

With the aim to prevent the emergence of commercial blood banks based on the recruitment of high-risk paid blood donors, the Royal Government of Cambodia confirms its commitment to the international recommendations and affirms that the NBTS activities are based only on voluntary non-remunerated blood

donations, as expressed in the general policy statement and regulations described above.

Strategies:

1. Development and implementation of a Blood Donors Recruitment (BDR) programme for the education and mobilisation of the population. This programme should be implemented in partnership with organisations primarily linked with blood donation promotion like the International Federation of the Red Cross (IFRC) and the Cambodian Red Cross (CRC).
2. To conduct a sociological survey in order to better understand perceptions of blood donation among the Cambodian people. The results of this survey will represent an important tool on which to develop educational campaigns and IEC materials for the promotion of blood donation, adapted to the Cambodian context.
3. Organisation and implementation of mobile blood collections targeted to HIV low-risk groups like high school and college students and Buddhist monks.
4. The promotion of real family donations in order to avoid the undercover “professional” paid donors.
5. The promotion of retention of voluntary blood donors in order to create a pool of voluntary regular blood donors. This retention of voluntary blood donors should be developed as a part of the BDR programme.

POLICY 2: Strengthening blood screening and Quality Assurance in transfusion centers.

The Royal Government of Cambodia in its policy of the attainment of quality blood transfusion services will ensure the continuity in screening for transfusion-transmissible diseases of all blood units collected. To strengthen this policy and to ensure the best and safest blood available for transfusions, it will also ensure the development and implementation in all transfusion centers of a Quality Control system that concerns every aspect of transfusion practice and especially those related with the collection and the laboratory screening of blood and the production, storage and distribution of blood and blood products.

Since 1991, screening for HIV, hepatitis B virus, syphilis and malaria² is mandatory for all blood units collected in Cambodia. Later in 1996, screening for hepatitis C virus was added to the group of tests practised in transfusion centers.

In 1999 almost 20% of all units of blood collected in the country were discarded because screened positive for at least one of the infections mentioned above.

This situation highlights the essential role that proper screening of blood plays. It also gives an idea of the extent of the substantial residual risk of blood borne infection transmission for blood receivers and the significant amount of resources wasted on positively screened blood units, emphasising the importance of better blood donor selection.

In spite of the prevailing environment of very limited resources, the government and the Ministry of Health has assured the continuity of a policy of systematic screening in order to provide the safest blood possible for transfusions.

In order to strengthen this policy, an external quality control programme for screening of infectious diseases has been implemented during recent years. This quality control programme today covers only the National Blood Transfusion Center in Phnom Penh. Internal supervisions are also carried out for the rest of Provincial Transfusion Centers (PTC).

However, it is important to develop a standard Quality Assurance system adapted to the Cambodian context and that covers equally all transfusion centers. This Quality Assurance system will concern every technical task related to all activities of a blood transfusion service, from identification and selection of suitable blood donors, collection of blood, screening and preparation of blood products, storage and distribution to hospitals.

² For the Provinces with high prevalence and malaria transmission

Finally, the documentation linked with the Quality Assurance system will represent a “Good Practice” manual for Cambodian transfusion centers and will be an important tool for determining indicators for the evaluation of activities and performance of the National Blood Transfusion Services.

Strategies:

1. All transfusion centers in Cambodia will continue to systematically screen blood units collected for transfusion-transmissible infections: HIV, Hepatitis B virus, Hepatitis C virus, syphilis and, in the provinces where there is a public health concern, for malaria.
2. The information concerning the screening for blood-borne infections practised in transfusion centers must be kept in confidentiality as specified in the regulations annexed at the end of this policy. When technical conditions and human resources trained allow it, some transfusion centers are authorised by the MOH/NBTC to provide results of screening test to blood donors. These centers should follow the recommendations from the National policy on HIV testing issued by the National AIDS Programme in 1996 and in accord with the National testing protocols.
3. Commitment of the Government and the Ministry of Health to maintain the allocation of resources needed is a key to sustainability of the screening policy.
4. While monitoring and supervision of transfusion centers should be continued, a standard Quality Assurance system for Cambodian transfusion services should be developed. This programme should be developed and implemented in cooperation with the Laboratory of Reference at the National Institute of Public Health. It should be started for the first phase in some pilot provinces in order to provide solutions to implementation problems and gradually be extended to all transfusion centers.
5. Definition of Nationally accepted indicators of performance emanates from the Quality Assurance programme.

Policy 3: Optimal use of blood and blood products.

The Royal Government of Cambodia and the Ministry of Health recognises as a priority the promotion of the rational use of blood and blood products and the utilisation of blood substitutes as a way to reinforce the blood safety programme. Education of medical and para-medical staff should be encouraged in order to reduce the demand for blood by health care services, e.g. improved antenatal care. Whole blood or plasma should be transfused only when their administration is absolutely essential to the care of the patient.

The third most important policy to promote blood safety strategies relates to the rational utilisation of blood by blood prescribers.

Until 1999, in Cambodia there was no medical training concerning transfusional medicine. Therefore, none of the medical doctors, users of blood in hospitals, have received formal training in this fundamental aspect of health care.

Analysis of the available data on blood demand and utilisation in hospitals confirms the idea that many medical doctors are not aware of the different risks associated with blood transfusion and that blood is frequently requested without full clinical indication. The under-demand and under-utilisation of blood products and other derivatives of blood also reflect this lack of knowledge.

Finally, the indiscriminate utilisation of blood aggravates the problem of lack of stock of blood available in the transfusion services. In 1999 the National Blood Transfusion Center participated to the elaboration of the Clinical and Therapeutic guidelines for Referral Hospitals especially in the chapter 7 concerning the basic principles for blood transfusion. This chapter should be the base for the development of comprehensive National guidelines for the rational utilisation of blood and blood products.

Strategies:

1. The development of National guidelines for the rational use of blood and blood products in hospitals. These guidelines should be developed by a National transfusion committee with broad representation of major users of blood (e.g. obstetricians, paediatricians, surgeons). The implementation of anaemia-prevention strategies (e.g.: improved access to antenatal care), the utilisation of blood substitutes and, when circumstances allow it, the practice of autologous transfusion should be promoted.
2. The implementation of continuing professional development seminars for doctors on the rational use of blood and blood products.

3. The continuation of undergraduate training of medical students on transfusion medicine and the development of a curriculum for paramedical staff students in the safe practice and follow up of transfusions.
4. The creation of “hospital transfusion committees” to evaluate the actual use of blood transfusion in order to comply with the established National guidelines and to promote optimal transfusion practice. This committee should also evaluate and report any adverse effects resulting from the transfusion of blood or blood components.

Policy 4: Institutional development of the National Blood Transfusion Services in a sustainable manner

The Royal Government of Cambodia and the Ministry of Health prioritises the sustainable institutional development of the National Blood Transfusion Services. This should occur through active integration of the NBTS to the ongoing Health Sector Reform; the creation of a more broadly represented National Blood Commission; human resources development and continuing professional development of staff; improving co-operation and coordination with private and non-governmental organisations; and the development of an autonomous, self-supporting (e.g. cost-recovery) financing system.

The demand for blood has increased substantially since 1991 and will continue to increase with the development of peripheral Operational Health Districts implementing surgical activities as a part of the Complementary Package of Activities (CPA), as described in the ongoing Health Sector Reform. The NBTS should develop to respond to those needs in a sound and cost-effective way.

The creation of a National Blood Commission with broad representation of all different parties interested in the blood programme should eventually replace the existing “sub-Cocom of blood safety”.

This committee will advise on and audit the development of NBTS.

It will also work as a body of coordination with the different government programmes (e.g. National Aids programme), the International organisations (e.g. Cambodian Red Cross and IFRC) and non-governmental organisations (NGOs) linked with health matters that affect blood.

Finally, institutional development also concerns the development of the human workforce. The Ministry of Health will seek to ensure that the human resources within the NBTS will develop in line with the needs, and due consideration is given to continuing training and post-graduate training requirements.

Strategies:

1. The creation of a National Blood Commission to advise on and audit the National Blood Transfusion Services. This Commission should include broad representation of all concerned members of the community: specialist in relevant medical fields and hospitals, blood donors, the government (MOH/NBTC), health programmes (NCHADS), international organisations and NGOs (Cambodian Red Cross/IFRC). This National Blood Commission will also work as a board of coordination for all parties

concerned with blood. In the mid-term the National Blood Commission could replace the existing sub-cocom of blood safety.

2. The development of continuing professional development and post-graduate training programmes for human resources within the NBTS according to specific priority needs, relevance and cost-efficiency.

Policy 5: The development of an autonomous, self-supporting financing system.

The Royal Government of Cambodia and the Ministry of Health prioritises the development of a system of long-term, stable financing for the maintenance, sustenance and progressive autonomy of the National Blood Transfusion Services. In Cambodia this self-supporting system should be based on cost-recovery for services required and provided like in a fee-for-service model in which hospitals and private clinics would pay the transfusion centers for services provided. As the health financing chart is still in process of implementation in public hospitals, initially this cost recovery system would be implemented exclusively for private clinics. In all circumstances, It is important to insist in the fact that cost-recovery payments are charges for the service and not for the blood. Blood provided freely by the blood donor should be provided free to the recipient. The Ministry of Health will fix the price for provision of blood units and blood products every year to all private health care establishments.

Since their re-organisation in 1991 and until 1997, the National Blood Transfusion Services were developed as an externally supported, complete vertical health programme.

To date, the government has succeeded in assuring the continuity of activities without disruption. However, the very limited resources available make complete financial autonomy too difficult for the government at present, and an international call has been made for external technical and financial donor support. This financial and technical support would make possible the development of the NBTS as proposed in the Strategic Plan for the Development of NBTS.

However, the government recognises that a system of long-term stable financing is most important for the maintenance, support and continuing improvement of the NBTS. Dependence on an external source of funding for the developing programme is a short-term funding mechanism that must be phased out to ensure stability at the earliest possible time. External donated money (like donated by international grants from International agencies or NGOs) is inflexible and unstable and, as the experience has proved in the past, it may also dry up for various reasons.

The development of an autonomous, self-supporting financing system is essential to sustain and improve blood programme activities. A cost-recovery system is the best prospect for achieving these goals. This is based on the blood services provided and required and the cost-recovery payments are charges for the service, not for the blood. In all circumstances, a cost-recovery formula

should be written into the framework of the financial reform developed at the Ministry of Health.

It is important to specify that **is not a payment for the blood but for the service** provided by the transfusion services. Blood provided freely by the blood donor, should be provided free to the recipient. However, it cost money to collect, test, process and deliver the blood donor's free gift in a safe condition.

Methods to assess general acceptability of this policy should be developed. Its implementation should also be progressive, affecting initially the private health care provision sector.

In all circumstances, this policy should be discussed and integrated into the financing health care reform ongoing by the Ministry of Health.

Strategies:

1. The organisation of a consultative group between the technical expertise of the National Blood Transfusion Services and the Health financing unit at the Ministry of Health for the study of feasibility the Implementation of a cost-recovery revenue generation system for services provided to private hospitals and clinics in order to allow the NBTS to start to achieve self-supporting and autonomous financing status. This cost-recovery system should be developed within the financial reform developed for health care structures by the Ministry of Health.
2. The implementation of a cost-analysis to provide an accurate estimate of the cost of the blood programme activities. This analysis will provide the basis for the fixation of the price for provision of services to hospitals and private clinics (e.g.: price of blood unit tested delivered).