Red Cross Blood Transfusion Activities in Nepal

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Introduction

The task of creating a viable and efficient blood transfusion service system in Nepal has been one of the major focuses of Nepal Red Cross Society since 1964, the year when it was established. With the dawn of democracy in 1951, hospital facilities in the country began to grow in extent as well as in the level of service provided. This situation gave rise to an ever-increasing demand for blood transfusions.

However, due to absence of proper coordination and lack of adequate motivation among the people, the supply of blood for transfusion was naturally inadequate and unreliable. Nepal Red Cross Society, because of the very nature of the role it plays in the national context, as well as being in harmony with its international commitments, considered the formation of Blood Transfusion Service in Nepal. Finally, as a result of the pioneering role played in this respect by the late H.R.H. Princess Princep Shah, Nepal Red Cross set up a Blood Bank in Kathmandu, in 1966 as a new dimension in its activities.

Historical Background

The practice of giving blood transfusions in hospitals of Nepal is very much a recent phenomenon. The first case of blood transfusion in Nepal took place in Bir Hospital in 1943. Thereafter due to lack of awareness among people, there were few donors. Most people had doubts about the harmlessness of blood donation on the health of the donors. In 1963 and subsequent years, campaign was launched by group of volunteers who were associated with Paropakar, a local philanthropic society, to induce people to donate blood. A panel of blood donors, with their blood types and addresses, was prepared and the list circulated for informa-

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tion to the hospitals. This arrangement for supply of blood, directly through donors, helped to a limited extent for some years.

However, with the hospitals gradually handling major cases and with a greater number of people turning to the hospitals for treatment, the urgency of blood to be available in time naturally called for storage facilities and institutionalized distribution. It is in this context, that Nepal Red Cross set up, in 1966, the Blood Bank with aims to systematize the demand and supply of blood for all eventualities.

Soon after the Nepal Red Cross started the Blood Transfusion Service, the late king Mahendra Bir Bikram Shah Deva led an example to the hesitating people of the country by donating blood himself. The late H. R. H. Princess Princep Shah, the Founder Chairman of the Nepal Red Cross, will always be remembered for her concerted efforts to motivate people by donating blood herself several time.

These, as well as the example set by some other distinguished persons, helped a great deal in developing positive attitude among the people towards blood donation.

The Blood Bank was first located in a small house near Bir Hospital, in Kathmandu, and the facilities available in terms of laboratories and technical staff were very limited. However, the establishment of the Blood Bank marked the beginning of institutionalized blood transfusion service in the medical history of the country and it also marked the opening up of new scopes for further expansion in this area.

The number of voluntary blood donors not being large enough to meet the evergrowing demands in Nepal's hospitals, a number of professional donors appeared on the scene in those years. Many people who could afford to pay, found it to be a very convenient system. However, this commercialized practice tended to discourage voluntary blood donors. In their bid to make as much money as possible, the professional donors, much to the hazard to their own health, often tried various means to get their blood taken several times within short intervals. Nepal Red Cross Society (NRCS) therefore took effective measures to do away with this practice by a gradual process and at the same time intensified its campaign for voluntary blood donation. The Blood Bank has been successful to a great extent in this respect without affecting the regular supply of blood requirements.

In the meantime, NRCS, through the medium of its district branches and other social

organisations, kept on with the campaign for blood donation, not only in Kathmandu but also in the branches it has set up at different points in the country.

With the improvement of medical facilities in various hospitals of Nepal, it was realized that the services provided by the Blood Bank needed to be diversified and expanded. Towards this end, a building where the Blood Transfusion Centre is located now, was constructed at Exhibition Road by Nepal Red Cross in 1980. Concurrently, a three years project was signed in 1979 between HMG Nepal and the Australian Government at the initiation of Nepal Red Cross and the Australian Red Cross. Under the agreement, Nepal Red Cross and the Australian Red Cross became implementing agencies of the project. The Australian Red Cross has made a sum of 375,000 Australian dollars available to Nepal Red Cross in phases which has been used to equip the Blood Transfusion Centre and to provide training to the technical staff working in it. A negotiation is underway to extend the project. Finally, the Red Cross Blood Transfusion Centre was graciously inaugurated by Her Majesty Queen Aishwarya Rajya Laxmi Devi Shah on 19.9.1982.

Under the enthusiastic patronage and able leadership of Her Highness Princess Helen Shah, Chairman, Nepal Red Cross Society, the Blood Transfusion Service, with its added facilities and more trained personnel, is now playing an important role in the areas of blood transfusion in the country. Besides catering to the demand for blood transfusion in Kathmandu, the Centre also serves as the nucleus for all other blood banks in the country for referrals and guidance. In all the aspects of its operation, the Centre works in consonance with the national plans and policies regarding health services in the country and bases its activities on the guidelines set by the Social Service National Co-ordination Council.

Objectives:-

The objectives of the Blood Transfusion Centre are:

- a. To arrange adequate supply of blood and blood components so as to meet the demand of blood transfusions in the hospitals of Kathmandu and to some extent, other parts of the country,
- b. To generate awareness among the people about the humanitarian value and harmlessness of blood donation and to motivate them to donate blood.
- c. To provide support services and necessary guidance to blood banks in the districts in matters of blood supply.

- d. To serve as a centre for institutional training as well as for other specialized training programmes and provide technical guidance in related areas.
- e. To prepare various types of antisera.
- f. To run a haematological clinic.
- g. To carry on research activities in various aspects of blood transfusion services.
- h. To prevent 'red gold' (blood) business.

Present Situation

1. The new building has a spacious laboratory, a convenient bleeding room, a cold room, a library room and power house etc.
2. The centre has received under the Australian assistance various items of essential equipment.
3. The laboratory technique has been upgraded to meet the international standard which includes:
 - a. Proper donor selection
 - b. Safe blood collection in 300 ml bags - as per the recommendation of WHO keeping in view of an average Nepali's height & weight, and safety factors of the donor,
 - c. Hepatitis and VDRL test on each donor's blood,
 - d. Proper preservation of blood,
 - e. Cross-matching of blood by three standard techniques,
 - f. Proper documentation of results,
 - g. Post transfusion hepatitis surveillance,
4. Introduction of blood donor recording, system.
5. Establishment of technical manual for Kathmandu and peripheral blood banks,
6. Fractionation Programme - the center, besides supplying whole blood, provides packed cells and fresh frozen plasma.
7. Training of staff of the central Blood Transfusion center and of the peripheral blood banks. Medical students for diploma course and technicians of certificate course are given training in blood transfusion techniques.
8. Courses of study have been developed for the Red Cross certificate in techniques of Blood Transfusion.
9. Service of normal immunoglobulin and anti-D globulins.

10. Blood Collection—Until few years ago about 80% of the blood donors were professionals. But, after the Blood Transfusion Centre was moved to the new building and the mobile collection was introduced the blood donation campaign started by Nepal Red Cross with the cooperation of other social organizations, gained momentum. As a result, more volunteer donors are donating blood, and the mercenary blood donors are disappearing. In the current year blood has not been collected from any mercenary donors.

Table of Blood Collection and supply 2039-40 (Fiscal Year)

Blood Collection – 4189				Blood Supply – 4425		
Replacement	Volunteer		Professional	Replacement	without replacement	Blood component
	Central	Mobile				
2590	842	857	0	2590	1835	236
				(58.5%)	(41.5%)	

N. B. – The figures are in units (1 unit = 300 ml. of blood).

11. Blood Supply – Suitable blood is supplied by the Center to hospitals on the receipt of the requisition form made out by the doctor. At present the blood is supplied without replacement in the following conditions:

- If there is an accident or other emergencies,
- If there is nobody to replace blood and this is certified by the superintendent of the hospital or in the case of Bir Hospital either by the hospital or by the Bir Hospital Volunteer Service Group,
- If the patient or one of the near relatives has donated blood in the past,
- If an institution which has been regularly donating blood has recommended for blood supply for a patient.
- At night from 9 PM to 6 AM.

Except as mentioned above, the supply of blood is on replacement basis; the relatives and/or the friends replace the blood.

12. Nine Blood Bank centres have also been set up in different parts of the country where blood is regularly used in hospitals by the doctors. But most of the Blood Banks have storage problems, due to irregularity in the supply of electricity.

Future Plan

The Blood Transfusion Centres has admittedly made great deal of progress, in providing its services to the needy. In the light of experience it has gained so far, and in view of the scope that has become available for further progress in the context of national needs, it is important that plans for streamlining and consolidating the services of Blood Transfusion Centre be undertaken. Towards this end, the BTC proposes to make the following activities its targets for the next 5 years (1985-90)

1. To increase the number of volunteer blood donors, so blood can be supplied to all patients without the need for replacement.
2. To raise the standard of existing central Blood Transfusion Centre, Kathmandu.
3. Development of Regional Blood Transfusion Centre, A new concept of regional Blood Transfusion Centre has been developed. Due to geographical limitations and inadequate transport facilities it is not possible to guide all the district branches from Central Blood Transfusion Centre. Thus a concept of Regional Blood Transfusion Centres at Biratnagar, Pokhara and Nepalgunj has been developed, so that there three centres will be in a position to supervise and support the blood bank in their area.
4. To raise the standard of existing blood banks in the districts located at Bhadrapur, Rajbiraj, Janakpur, Birgunj, Bharatpur and Butwal.
5. To open 15 new Blood Transfusion Centres all over the country in the coming 5 year plan.
6. To provide training to more staff members: which includes training for blood transfusion motivational staff ect., of central and district level.
7. To gradually increase fractionation of blood which includes packed cells, fresh frozen plasma and cryoseperation.
8. To set up a haematological clinic.