

## Dept of Transfusion Medicine: Safe blood starts with me

Blood transfusion is an indispensable component of health care system. The discovery of safe blood transfusion, has revolutionized the modern health care system to new heights. The surgeries that were considered as impossible a century ago probably due to anticipated blood loss, are happening on regular basis. It contributes to saving of millions of lives every year in both routine and emergency situations. This in turn permits performing highly complex medical and surgical interventions involving blood transfusion and thereby increase the life expectancy and quality of life of persons with acute and chronic health conditions. An increase in aging population requiring more medical care has also resulted in increased demand for blood and blood products.

A well-organized blood transfusion services is one of the markers of efficiency of health care system. No health care system in the world can survive without adequate and safe blood and the only source for the same is healthy blood donors. Nation's requirement of blood is determined by the capacity of the country's health care system and its availability and accessibility for its population. The advancements in medical sciences, the global availability and accessibility of health care facilities continuously implies pressure on blood transfusion services throughout the world.

The World Health Organization estimates that, blood donation by 1% of the population is generally needed to meet nation's most basic requirement of blood. The requirement is higher in countries with advanced health care facilities. The global requirement of blood stands at 81 million units per year. About 235 million major surgeries take place globally every year. 1.2 million die every year due to road traffic accidents and 20-30 million are injured or gets disabled and large population of whom require blood transfusion in the first 24 hours. Of the fatalities 90% happens in the transitional and developing countries. The timely availability of the blood at the emergency health care facilities is one of the determinants of patient survival. The adequate availability of safe blood at any point of time prepares the hospital and health care facilities to face any health care emergency situations.

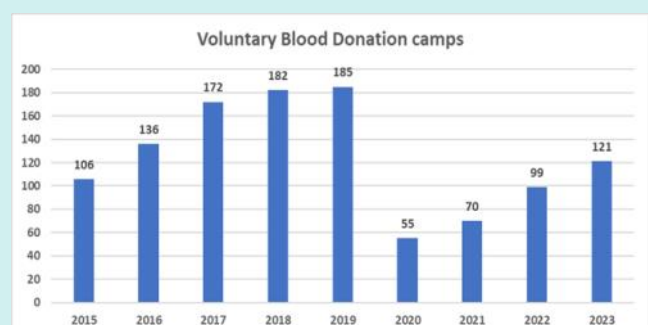
In countries with diagnostic and treatment facilities are limited, it has significant influence on the blood transfusion services such as collection and storage. In countries where blood transfusion services are limited, the majority of transfusion are prescribed for management of complications during pregnancy and child birth, severe anaemia, trauma and congenital blood disorders. Access to safe blood could help to prevent one fourth of maternal death every year. Blood transfusion services is identified as one of the eight lifesaving function that should be available in

the first referral units involving mother and child care facilities. Most countries with low rate of blood donations depend on blood given by the family members or friends of patient who require it or on professional or paid donors. They are hesitant to come to the pool of voluntary donors and rarely respond to a voluntary blood donation as the key component of voluntary and altruism is missing. Voluntary blood donation is the foundation of the safe and quality Blood Transfusion services in the country.

In Indian context the minimum required blood according to WHO projection stands at 15 million units per annum. Our annual collections stand at 13 million units as against requirement of 14.6 million. We are consistently falling short of approximately 1 million blood units as deficit every year. In India, with its existing population of 1500 million, the gap between demand and supply of blood can be bridged through planned, systematic, and outcome-oriented donor recruitment, and planned production of blood components and plasma derivatives.

The donor recruitment is task involving systematic, conscious, deliberate, and continuous efforts. This activity requires skills in marketing, public awareness building, public advocacy, mass & social media handle management, fund raising, adequate legislation. It is in these areas the expertise of volunteers and voluntary organizations becomes handy. Recruitment of voluntary blood donor is a challenging task. It's a never-ending process. The crucial component is that the public must inculcate that blood donation without prompting is their civic responsibility. An ideal model for foundation of safe blood supply is through a committed group of healthy, altruistic donors who have been recruited by a committee and well-organized dynamic donor recruitment organization. Hence it is difficult to undermine the role of voluntary organizations. Donor recruitment and donor retention can be achieved by regular and continuous efforts to build awareness amongst general public. The expected outcome must be regular supply of healthy and safe blood without experiencing seasonal shortages.

Blood and blood products are unique and precious nation's resources because they are obtained from healthy population. Every nation's blood transfusion



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policy must aim to increase and retain substantial pool of voluntary blood donors in order to ensure stable supply of blood and blood derived products in the country. The voluntary blood donation activities must contain key elements such as donor education, donor recruitment, donor selection and donor retention.

Prevention of transmission of HIV infection through blood transfusion is a matter of prime strategies in HIV/AIDS prevention. The risk of HIV infection through blood transfusion is very high when compared with other common modes. This reiterates the importance of blood safety. Voluntary non remunerated blood donors are considered to be the safest blood donors because they are motivated by altruism, and the desire to help others and the sense of social or moral responsibility. Voluntary donors are guided by the reward of self-esteem, personal satisfaction, and moral responsibility. They have very little reasons to hide their medical condition. They are under no pressure from family members or official or hospital staff to donate. They donate when they feel they are healthy and fit to donate. The voluntary donors especially regular donors are well informed about the selection criterion and will self-defer when they feel they are unfit. They are guided by the sense of self determination. The voluntary option as fewer units turns to be test reactive and there blood donation in long run is financially viable

reduce the associated cost and resultant discard. Promoting voluntary blood donation upholds the fundamental values of respecting the worth and dignity of individual, protecting their rights and well-being, and protection from exploitation.

National Blood Policy, Government of India 2002, and The Action Plan for Blood Safety, Government of India emphasizes on augmenting blood collection through voluntary blood donations and phase out replacement donors. The department of Transfusion Medicine in SCTIMST, was established in the year 1978. From 2003 onwards, there has been sustained efforts to increase the voluntary blood donation (VBD). The percentage of VBD increased slowly over the years and in the beginning of 2016, we were able to reach more than 90%. This gave us the confidence to strive harder. The result was the public declaration of 100% VBD in SCTIMST Blood Centre, on October 1<sup>st</sup>, 2016, by the then Health Minister of Kerala at the state level inauguration ceremony of National Voluntary Blood Donation Day in SCTIMST.

Upto March 2020, we were able to maintain the 100% voluntary blood collection status, with an average of 15 outdoor drives per month. Standard Operating Procedure (SOP) for blood donation camps was developed. Over the years the blood centre was able to make up a reasonably large pool of regular voluntary blood donors.

### Declaration of 100% Voluntary Blood Donation by Health Minister of Kerala (2016)



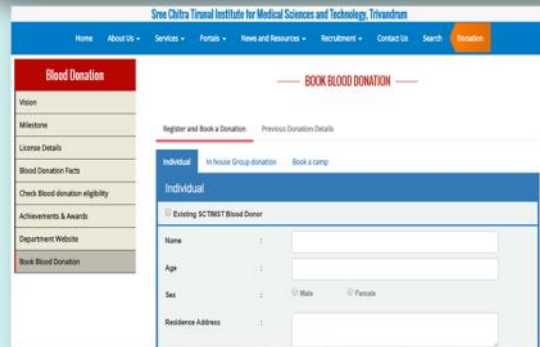
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With COVID lockdown in place, there was complete stoppage of outdoor drives in the initial months of 2020. With support from government and numerous awareness classes through print and visual media, slowly we again started the outdoor camps. Special Blood donation drive was held on Sept 17th, 2020, on the birthday of Hon. PM.

Now, our annual blood requirement is around 8000 blood units, and we estimate an additional requirement of 4000 units following the functioning of the new hospital block and our daily requirement with the new block becoming functional will be 50 collections per day.

The Golden rule in voluntary donation successfully is to take the blood donation close to the donor rather than expecting them at the blood centre. The closer the blood collection site to the potential target group, better the chances of a successful outcome. In addition to this, efforts are made to reach the public through mass media especially educative session through Government broadcasting channel (DD4 Malayalam Samooyapadam program), and donor motivation sessions are conducted on regular basis



at educational institutions where potential donors or likely to be donors are there. In addition to this collaboration with different government departments like police department, college level National Service Scheme, NCC units, and community-based organizations which have wider public reach are ensured for expanding the voluntary donor base.

Ultimately it is the public trust which does the magic. The general community and comer has to develop trust in the efficiency, safety and integrity of the blood transfusion services. Unless this trust is made the public will be hesitant to donate. The reasons for this abstinence can be numerous. Most of the countries has to cope with the public image cause by single staff to compromised donor care or unfriendly policies and newer selection criteria. The trust earned over the years can be undermined resulting in loss of loyalty and support of voluntary donors, organizations, and stakeholders.

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