

BLOOD LINE

THE VOLUNTARY BLOOD DONATION JOURNAL | ISSUE 56 | 2020

EFFECT OF COVID-19 ON BLOOD BANKS AND VOLUNTARY BLOOD DONATIONS.

COVID-19 pandemic is the biggest health crisis of our lifetime and it has completely changed the world we live in. The rapid rise in cases of COVID-19 across the globe and the health problems associated with this highly contagious disease has put unprecedented pressure on the global economy and the health care system. To combat this menace, the Government of India imposed a complete lockdown on 22nd March 2020, aiming to prevent the spread of this disease and to flatten the curve of coronavirus cases

The lockdown necessitated the complete suspension of all economic activities, except the ones classified as essential. While this lockdown had a huge impact on the economy, it also severely affected the delivery of certain medical services, such as the functioning of blood banks. In this article, I would like to discuss the impact of COVID-19 and lockdown on blood banks, especially on voluntary blood donations. I am sure a lot of my colleagues will agree that it is usually difficult to meet the supply and demands in the blood banks in normal times. However, this COVID time is even more challenging. When the lockdown was initially implemented in the country, there were severe restrictions on the common man's movement and social gatherings. Routinely, a large number of blood banks depend on voluntary blood donation camps for procuring blood units. Most of these camps are held outdoors either in villages, halls, religious places, etc. With the advent of COVID and lockdown, all the drives were canceled and since there was a restriction to the movement of people and organization of public gatherings, there was no foreseeable chance of holding these drives. All this led to a severe

shortage of blood and blood components in blood banks. The situation further worsened as even though some donors were committed to blood donation, they were reluctant to go to the hospital to donate blood in view of the fear of exposure to coronavirus in the hospitals. The little donation we got at that time was from the family members of the ailing patients, the voluntary donation from the medical staff, and from our emergency stock of blood.

As the lockdown further extended, the initial blood bank stock dwindled, donations further decreased and there was extreme panic in the blood banks. Even though there was an initial decrease in the demand for blood since there were few cases of elective surgeries and trauma, there was still a huge demand for emergency surgeries, obstetric emergencies, trauma, thalassemias, cancer patients, and other acute illnesses requiring blood and blood components. Visualizing the whole situation, an alarm was raised for help and many nongovernmental organizations (NGOs) came forward and organized camps in the individual blood banks. All the norms of social distancing and sanitization were maintained during these camps held locally at the blood bank sites. These camps helped the blood banks meet a part of the huge demand, but still, there was a huge mismatch in demand and supply. This shortage of blood not only affected the hospitals but also patients, especially the migrant laborers. During this time, I came across several migrant laborers who ran pillar to post in order to arrange blood for their admitted family members, as they had no relatives to offer blood donation. Many times, in such situations, our hospital staff volunteered blood for these patients.

Currently, with the unlock phase one and easing of restrictions by the government for organizing blood camps, things are getting better. What is crucial for blood bankers in the current scenario is to keep the motivation levels high among the donors, take the support of the NGOs, and pragmatic balancing of the bloodstock. We should look for particular occasions to organize camps, for example, blood donor day, world thalassemia day, etc. as many people come out to donate blood on these occasions. Emergency blood donation camps with 20-30 people can be organized as and when needed. It is important to note that even though there has been no evidence of transmission of COVID-19 infection via blood transfusion as stated by many journals and research papers, all blood banks with the advice of the National Blood Transfusion Council (NBTC) has added questionnaires pertaining to the travel history of the donors and exposure to any sick patients. We also need to ensure the safety of the donors by following all the precautions in our blood bank premises, such as, temperature checks, hand washing, sanitization, social distancing, use of gloves and masks, etc. so the donors and staff feel safe. Furthermore, judicious use of blood and blood products and the use of alternative blood groups in case of emergency/non-availability should be practiced.

It is a huge challenge nowadays in front of blood bankers to ensure sufficient blood supply to meet the demand and also to emphasize the safety of patients and the medical staff. By following safe practices and mutual cooperation will help us tide over this tricky situation and save precious lives at the same time.



Dr. Sahil Bansal,

(MBBS, Ex-Pathology Resident, Cleveland Clinic, Cleveland Ohio, USA)

**CEO, Life Share and Bansal Labs, Ludhiana , Blood Transfusion Officer
Shree Raghunath hospital Blood Bank, Ludhiana, Punjab**

Having 5 year experience in the field of Transfusion services and Lab Medicine.
One of the leading service provider of transfusion and lab services in Punjab .

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Thalassemia and Sickle Cell Diseases Need Regular Blood Donation - Ministry of Health and Family Welfare, Govt of India

Thalassemia and Sickle cell diseases are two common genetic disorders that are chronic, life restricting and require long and specialized treatment. They cause severe distress and financial loss to the family and are a great drain on the health resources of the country. With the fall in infant mortality rate due to control of communicable and nutritional disorders in the last decade in India, these disorders have become important causes of morbidity and mortality. It is estimated that there are almost 3.6 to 3.9 crore carriers of β -thalassemia in India, and about 10000 to 15,000 babies with β -thalassemia major are born each year and around 150000 are of patients with Thalassemia major. For sickle cell disease there are about 25,00,000 carriers of the gene (Hemoglobin AS), and about 1,25,000 patients of sickle cell disease. Recognizing the great socio-economic burden these disorders place on the family, society and the health services, and the knowledge that India has the technology, know-how and the means to adequately prevent, treat and control both thalassemia and sickle cell disease. The Government of India has formulated a policy aimed at informing and providing broad guidance on prevention and management of these disorders. A technical committee was constituted comprising of experts and representatives of parent organizations to formulate a policy on hemoglobinopathies. The Committee members examined whether to have a separate policy for thalassemia or a common policy for hemoglobinopathies that encompasses Thalassemia and sickle cell. The committee was of the view that a common policy would be advisable as these disorders have common clinical features, arising from defects in the same gene (β globin), may occur together and have similar management strategies. Differences in management, where they exist, will be stated. This document is based on the recommendations made by this committee. This policy encompasses the public health goals of providing the best possible evidence-based treatment for those affected and reducing the birth of affected children through carrier screening and prenatal diagnosis. This empowers prospective parents to have normal children and reduce the burden of these disorders in future generations.

There are many challenges in developing a plan for treatment and prevention of Hemoglobinopathies in India. The epidemiological data is incomplete, and the precise burden of these disorders is unknown. Treatment consists mainly of giving repeated blood transfusions, bringing with it the challenges of motivating donors to give blood, and avoiding the transmission of infections such as HIV, hepatitis B and C. The excess iron that gets into the body through the blood transfusions needs to be removed by use of the expensive chelators. Bone marrow transplantation as a curative treatment requires an HLA-matched donor, specific infrastructure and trained doctors and nurses. The physicians need 4 specialized training to treat the affected patients, as well as monitor and manage the complications of therapy. Treating sickle cell disease is equally challenging, especially as patients are often living in remote areas, and have poor socio-economic status. The management of pain and vaso-occlusive crises is difficult. The policy envisages provision of services for patients with hemoglobinopathies through a hierarchical infrastructure by strengthening existing public health facilities. The policy envisages creation of



centres of excellence in states that will have advanced facilities required for comprehensive care for patients with thalassemia/sickle cell disease, including a bone marrow transplant unit and a prenatal diagnostic center. The centers of excellence will provide technical support for thalassemia in the medical colleges, tertiary care hospitals, district level health facilities and primary health centers, as well as impart training to the health professionals. The policy recommends creation of a hemoglobinopathy unit (clubbed with hemophilia for logistic purposes), in government medical colleges / tertiary care facilities as well as district level hospitals to carry out therapy as well as preventive activities. Therapy will be provided through day care. The policy also envisages capacity building through training of doctors in chelation therapy, and for monitoring and managing complications. Special care will be taken to look for complications in the liver, heart and endocrine glands and providing evidence-based treatment. The policy recognizes that for prevention, the focus should be on creating awareness of these disorders in the community for better acceptance of carrier screening. This is recommended for all pregnant mothers, based on automated red cell counts with confirmation by HPLC analysis for Hb A2 and other hemoglobin variants. For women identified to be carriers, their husbands will be screened and in couples where both the partners are carriers, prenatal diagnosis will be offered to ensure that they have a baby unaffected with a clinically significant hemoglobinopathy. Carrier screening could also be undertaken for high school and college students., Premarital and pre-conception carrier screening should be instituted with appropriate genetic counseling.

All subjects screened would be given a card indicating their status, whether normal, carrier or diseased through systems of colour coding. For sickle cell disease, policy recommends newborn screening to be initiated in areas of high prevalence. Those detected to have Hb SS or compound heterozygously of Hb S and β -thalassemia will be provided prophylaxis (oral penicillin or erythromycin) with immunizations, especially pneumococcal and Hib vaccine, and followed up carefully for development of any infection. The policy envisages that facilities will be provided for avoidance or early recognition and treatment of complications such as vasoocclusive crisis (splenic or bone infarction, cerebrovascular accidents), and blood or exchange transfusions where indicated. Plans to manage pain, which is a constant and troublesome

and psychological support will be provided. 5 An appropriate mechanism is recommended to be institutionalized at national level for policy guidance and for prevention and control of hemoglobinopathies. This will facilitate and enable periodic review and course corrections as required.

A similar mechanism is also recommended to be instituted at state level based on need and disease burden for devising and oversight of implementation strategies for hemoglobinopathies in the government health facilities In the rural areas, Asha workers are envisaged to be trained to identify subjects with severe anemia which could be likely to be due to thalassemia major or sickle cell disease and counsel such patient to enable contact multipurpose worker (Female) for referral to the primary health centre for further testing and confirmation. The primary health centers should be equipped with equipment prescribed as per the IPHS norms to measure the hemoglobin, and red cell indices using, and carry out carrier screening of β -thalassemia based on osmotic fragility test, of sickle cell by solubility test / sickle cell test, and Hb E by DCIP (dichlorophenolindophenol) test. The doctors will examine the patient for features of thalassemia major or sickle cell disease. In case of doubt, either the patient will be referred to the district hospital or blood will be drawn in an EDTA tube and sent to the district hospital for further testing.

The policy envisages a system of referral from sub-centers or primary health centers, to district hospital to medical college or tertiary care hospital to the COE (center of excellence) including through use of digital technology such as tele consultations The policy recommends creation of a web-based Application to be housed in the National Health Portal for providing information in simple language with translation in the common Indian languages, about the disease, its complications, their management, and the places where different facilities are available. The policy advocates a multi-stakeholder approach with partnership & participation of patients, parent support organizations academic institutions, not for profit agencies, and health care industry. The Policy advocates for provision of medicines, including iron chelating agents, hydroxyurea, leukocyte filters and infusion pumps free of cost to the poor patients. In line with "Make in India", the policy advocates for promotion of manufacture of the equipment and chemicals in India, and including through waiver of GST and custom duties to reduce cost of treatment for the affected families The policy recommends setting up of a patient registry for thalassemia and sickle cell disease to obtain information on the number of persons affected and the number of carriers to estimate patients who require various services.

The data on carrier screening performed in different regions will be collated to determine the burden of hemoglobinopathies. The policy advocates promoting research to develop innovative treatments for thalassemia major and sickle cell disease, and devise new diagnostic methods, keeping in mind the continuously evolving technology in this field. 6 Public health and hospitals is a state subject these policy guidelines are meant to provide guidance to the states, and they should adopt these policy guidelines or adopt with such modifications as appropriate.

"You guys are good enough to write. Regarding addressing the issue of thalassemia, the efforts which has been taken by the Government should also be included. Visit mohfw site ".
Thanks & Regards,

Vinita Srivastava,
National Senior consultant & coordinator
Blood cell - NHM, Ministry of Health &
Family Welfare, Government of India,
Nirman Bhavan, New Delhi, India

"Baby san, thank you for always sending Bloodline. In such an environment where the infection of the new COVID-19 is spreading all over the world, I think that it was difficult to edit this Bloodline this time. I sincerely hope that Baby san, all associates and their families are safe".

With best regards,

Yoshihiro Kimura
Director, Audit/Supervisory Committee
TERUMO CORP

"Congratulations on an excellent issue! You have covered a range of highly relevant topics such as Plasma Therapy for Covid-19 patients to the plight of Thalassemia children struggling for their monthly blood transfusions to motivational blood donation camp stories. DKMS BMST Foundation India is very proud to be associated with the CSR initiatives of Terumo Penpol, under your leadership".

Warm regards,

Shalini Gambhir
Lead - Partnerships, Patient Programs & Special
Projects, DKMS BMST Foundation India,
Bangalore, India

"Greetings from Saral Blood Bank Udaipur. In existence since 2008 with component and Apheresis facilities. Gone through the publication "Blood Line" and has found so content full, motivating and educational maintaining brevity. We wish you all the best and certainly would like such publications regularly in hand and at blood bank for visitors for visitors lol the time".
Regards

Shyam S Singhvi
Hon Secretary, Blood Bank Udaipur

"Trust that you are keeping well and safe. Keep up the good work".
Best regards

Dr Joy Mammen MD
Professor & Head
Department of Transfusion Medicine
Christian Medical College, Vellore
Tamil Nadu, India, Pincode 632004

"Thanks Baby mam for sending the Blood Line journal without fail. It gives us lot of information about promotion of voluntary blood donation. Please continue to send me this journal".
Regards

Jayant Umalkar
Saral Enterprises
Mumbai-India

"Thanks for publishing my letter in your journal. But my query for consideration of fitness of a willing blood donor having less blood cells (RBC, WBC, Platelets) has not been specified. Hope this will be cleared by an article in the coming issue".

Sitangsu Kumar Bhaduri
11A/2, Dr. P. N. Mukherjee Street, Chatra,
Serampore, Hooghly (W. B.) , 712204

"Thank you for the latest issue of Bloodline which I find very topical in this Covid 19 times. I found the information contained very useful in understanding the efforts going on in fighting the pandemic".

Kind regards,

Dilip Varma
HR Consultant

I, Sujil Prakash working as a blood bank technician in aster MIMS hospital, Calicut. I am a regular reader of your publication blood line; the publication is useful full to know about the present criteria of blood donation and inspiring stories of blood donation and the publication is very useful for everyone. I am writing this letter to inform you that please kindly upload the recent publications of blood line journal into your Terumo Penpol website. Blood line journal is a very good publication it's very useful to know about lots of things related to blood transfusion. I also read the last edition of blood line journal it's very useful to know about the recent COVID 19 related problems, blood shortage, especially thalassemia patient suffering a lot and also informative journal about the convalescent plasma therapy.
yours faithfully

Sujil Prakash
Blood Bank Technician, Aster MIMS hospital, Calicut

A new problem due to lockdown..

"In order to meet the shortage of blood due to lockdown, people in Faridabad are voluntarily donating blood for donating blood and motivating each other. Yes, [N.I.A.] has been a great collaboration. Due to which thalassemia-infested children from other states have also been in sriramji Dharmath Charitable Hospital run by rotary Thalassemia Care Centre and Rotary Club of Delhi South Central Foundation against Thalassemia, run by the Rotary Club of Midtown Foundation against Thalassemia, Faridabad.

The Secretary General of foundation, The Institute of Thalassemia, Shri Ravindra Dudeja said that a thalassemia child who is a resident of Bihar, Delhi had come to get his checkup and Delhi was stuck due to public down. Who has stopped it from one of his own. As the thalassemia sufferer sedentary patient needs constant blood, most of the blood transfusion centres in Delhi have been converted into corona wards due to which the said patient was today brought to Faridabad with the help of foundation against Thalassemia, district administration and Rotary Club of Faridabad Midtown and free blood was climbed at Sarvodaya Hospital. For which Dr. Anshum Gupta, Dr. Rakesh Gupta had a great cooperation. The child's hemoglobin was only four, which should be at least nine or ten. The condition was that the family had not been able to eat anything for which Mr. J. Singh of rotary club of Faridabad Central. S. Shri Sanjay Bansalji collaborated. For the family, Shri Anil Arora brought home food. Those people were very happy. He said it seemed that he would lose his child, but his child got life in collaboration with all the people. The mother of the child said that the cooperation that everyone did would not be able to sell themselves. This debt will continue to ascend to them throughout their lives. Now, the child was sent back to Delhi by auto soon the child will have to have a blood transfusion once again, the hemoglobin of the child was very low.

The institution's principal Harish Ratra said that if the child's hemoglobin becomes normal, arrangements will be made to send the family back to Bihar. For which Shri Yashpal Yadav, Deputy Faridabad, Government of Haryana will be talking to the Government of Bihar. The institution's principal Harish Ratra prayed to the dani people of the society to come forward and donate blood for the children. The institution's B. Das Batra, Narayan Shah Singh Nikka, J. case-ending showing possession or relation. Bhatia, Neeraj Kukarja, Ajay Agarwal, Pawan Kumar, Pankaj Chaudhary, Amarjeet Singh Arora, John Sam, Somnath Kukarja, Madan Kalra along with Shri Mukesh Agarwal, Shri H. case-ending showing possession or relation. Batra, Mr. O.P. Gulati, Shri Satish Gosai, Shri J. the cry of a cuckoo reminding lovers of each other. Malhotra, Shri Deepak Prashad, Shri Sanjay Wadhawan, Shri Pankaj Goel, Shri Deepak Bhasin, Shri Kamaljeet Madan, Shri Kulbhushan Mayer, Jaspreet Singh Ji Sakhi Clubs are getting full support from all the members of the lockdown.

With warm personal regards

Ravinder Dudeja
Founder Gen. Sect. Foundation Against Thalassemia Regd.
House No. 137 First Floor Sector 7A Faridabad 121006, Haryana - India, Contact +91-9868841164

Letter To Editor



"Topic & Articles covered in this blood line Journal is very excellent & Liked very much
Baby Madam, Thank you for sharing".
Regards

Panduraj
Regional Manager
TERUMO Blood and Cell Technologies
Mumbai

Everyday, Shajahan will be present at the blood bank around 11am ready to help relatives of patients who approach him.

You Can Count on This Donor To Save Your Life!

THIRUVANANTHAPURAM: It was a Facebook post by 37-year-old Shajahan in early March that helped the Regional Cancer Centre's (RCC) blood bank overcome a steep fall in the number of donors owing to the Covid-19 scare. The post went viral and people and youth organisations poured in to donate blood. As RCC blood bank follows 'replacement donation', it poses a challenge for people from far-off places, who do not have friends or relatives in the city. Shajahan is a beacon of hope for them. Using his vast network of friends and social media supporters, Shajahan arranges suitable donors. Everyday, Shajahan will be present at the blood bank around 11am ready to help relatives of patients who approach him. This good Samaritan is a vegetable trader in Chalai market. "My work starts at 3.30am everyday. I'm engaged in intermediary trade, which means I buy goods from wholesalers and sell them to small vendors. I'll be done at the market in five hours. Then, I go home,

take a quick bath, have food and reach RCC in 15 minutes," he said.

Shajahan first donated blood ten years ago for a patient from Malappuram. "My friend introduced me to the patient's relative. At the blood bank, I saw people frantically searching for donors. Most of them were from distant places who had little contacts here," he said. Shajahan has since been a regular donor and even switched to platelet donation. "Platelet transfusion will help the patient regain blood count faster. Also, the standard interval between two platelet donations is just three days, while it is three months for blood donation. However, platelet donation takes one-and-a-half hours," he said.

Shajahan has arranged over 5,000 donors for cancer patients. Some textile and jewellery shop owners have even helped him by sending their staff for donation. Shajahan becomes distraught if he cannot save a life despite fighting for it. He



recalled the story of a poor couple from Palakkad who lost both their kids. "The six-year-old daughter died first. A year later, their seven-year-old son also died. The parents were devastated," he said. The couple did not have any money left. Shajahan arranged an ambulance and accompanied them to their native place.

Those who wish to donate may contact Shajahan at 9699694969.

Source : The New Indian Express

World Blood Donor Day Celebrations

Terumo Penpol celebrated world Blood Donor Day Across India by engaging with the commercial department

NBTC says that in house Blood donation has decreased by approx. 50% and the voluntary donations have gone down by almost 100%. Because of the COVID19 the requirement of blood has increased whereas the donation went down drastically. There is a fear that scarcity of blood can lead to death of several helpless patients. Many blood banks used WBDD as an opportunity and reached out to donors virtually. Terumo Penpol organized more than 115 camps in a week time in the entire country collecting approx. 2250 lit of blood. The donors were gifted T-shirts. And Jute Bags .

It was a hot week temperature shooting up to 47 degree besides the Covid 19 fear and social distancing norms. This could not stop the donors from coming forward and demonstrating their passion to donate blood and save lives



WBDD in Kerala

People were encouraged for voluntary blood donation by actively pursuing the NGO's to donate blood on 14th June, around 38 donors from All Kerala Blood Donors Society donated blood at Sree Chithra Thirunal Institute for Medical Science and Technology. Gifts were distributed at The Medical College Hospital Trivandrum and Medical College Hospital Kottayam.

Besides, the regular donors were honored at Terumo Penpol Blood Bag Factory, by giving them a T-shirt with a slogan on blood donation.

Mr. Abraham Mathew, Vice President, Operations inaugurated the distribution by giving away the gift to Mr. A Gopakumar, a regular donor.

As part of World Blood Donor Day, the CSR department distributed masks carrying a short message on voluntary blood donation to all the associates at Terumo Penpol and various public institutions located around the factory.

Mr. Abraham Mathew, Vice President, Manufacturing inaugurated the distribution by wearing one himself and distributing it to the Union Leaders at the Blood Bag Factory. We believe that by wearing a mask with a message on blood donation, we are showing solidarity towards the cause.

The Government institutions that received masks were,

- Community Health Center, Vilapilsala
- Community Health Center, Kulashekaram
- Vilappil Grama Panchayath
- Nemom Block Panchayath
- Vilappil Police Station





Honoring Regular Blood Donors at Govt. Medical College Kottayam

Department of Transfusion Medicine, Government Medical College, Kottayam is one of the busiest blood centres in the state with an annual blood donation of around 25000. Motivated voluntary blood donors helps in handling the endless needs for blood and blood products for the needy patients. The hospital is fortunate to have a bunch of dedicated blood donor groups who supported whole heartedly in times of Covid 19 crisis , during the shortage of blood. Hence in the midst of Covid19 restrictions, the hospital administration invited our regular blood donors and honoured them for their selfless service They also honored 5 Organisations for their untiring support in conducting in house camps during Covid lock down. Terumo Penpol supported MCH Kottayam in organizing the event.

Deenath Mangeshkar Hospital, Pune

Ruby hall clinic, Pune



Sterling Hospital, Ahmedabad

Aditya Birla Hospital, Pune

Prathma Blood Bank, Ahmedabad



KEM Hospital, Pune

BJ medical , Ahmedabad

CIIMS HOSPITAL, Ahmedabad



Akai Hospital , Ludhiana



Amandeep Hospital, Pathankot

Kidwai Hospital, Bangalore



RN Tagore Hospital Blood Bank, Mukundpur, Kolkata



Max shalimar Bagh



Safdarjung hospital, Delhi



St Johns Medical College Hospital, Bangalore



Rotary Guru Gram



ESI Faridabad



Preet Hospital, Patiala



Amandeep Medicity, Punjab



Fortis hospital, Bangalore



Rotary Blood Bank, Chandigarh

Sohana Hospital and Fortis, Mohali



PGI, Chandigarh

GMCH, Chandigarh



Fortis Hospital, Mohali



GMCH, Patiala



Civil Hospital, Karnal



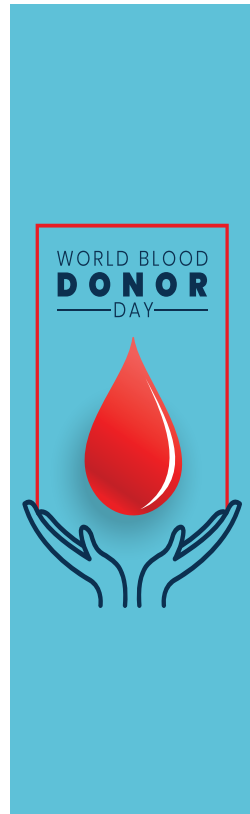
Dera Sacha Souda, Haryana



Life line Blood Bank, Ghaziabad



Max Vaishali



SMS Trauma Centre, Jaipur

BMCHRC, Jaipur



Life Line Blood Bank, Nagpur



Apollo Gleneagles Hospital Blood Bank, Kolkata



Fortis Shamilar, New Delhi



Batra Cancer Hospital



Life Line Blood Bank , Agra



DMC Ludhiana



Yashoda Hospital Ghaziabad, Uttar Pradesh



Yathartha Hospital, Noida

Rotary Blood Bank, Noida



Felix Hospital Greater, Noida



Bulandshaher Charitable Blood Bank.



Samarpan Blood Bank Agra, Uttar Pradesh

Om Charitable Blood Bank Agra, Uttar Pradesh



Manav Sewa Blood Bank Agra, Uttar Pradesh

Fortis Noida



Sarvodaya Hospital , Ghaziabad

Metro Hospital, Noida



CK Birla Hospital , Jaipur

Civil Hospital Panchakula



Bhagawan Mahavir Cancer Hospital,Delhi

Asian Hospital , Faridabad



AIIMS Jhodhpur

Lokitam Blood Bank , Agra



AIIMS Delhi

Rotary Jodhpur

Sri Ram Blood Bank, Kota

Sriji Blood Bank, Kota

Rukmini Birla Hospital , Jaipur



Suman Blood Bank, Jaipur

SPS Hospital , Ludhiana



Tapovan Blood Bank , Ganga Nagar

JK Lone Hospital, Jaipur

Indus Blood Bank, Mohali

Sahara Hospital , Lucknow



Venkateshwara Hospital , Delhi

HBCIV, Varanasi



Kalpna Chawla Medical College New Delhi

Red cross Blood Bank , Panipat

Kota Blood Bank

Sudha Blood Bank , Rajasthan



Johal Hospital , Jalandar

Life Line Blood Bank, Patiala



RF Karnal

Balaji Charitable Blood Bank,UP



Narendra Mohan Hospital

Bhagwan Budha Charitable BB Ghaziabad, Uttar Pradesh



Fortis Escorts, New Delhi

Fortis Vasant Kunj



Artemis Hospital , Gurugram

QRG Hospital, Faridabad



Prohit Blood Bank, Rajasthan Sanjeevani Blood Bank, UP



Agrasen International Hospital Delhi Indian Spinal Injury Center Delhi



ESI Basaidarapur, Delhi ILBS New Delhi



AFTC New Delhi Jaipur Golden Hospital



Nutima Hospital, Meerut SSPGI, Noida



RGCRI, New Delhi Max Saket



Nyati Hospital, Mathura Yashodara Hospital Nagar Rajasthan



Civil Hospital, Gurugram Sarvodaya, Faridabad



SPGIMS, Lucknow CNS Blood Bank, UP



Panchkula Welfare society Global International



eevan Jyoti Blood Bank, UP JLN Medical College, Ajmer



ifeline Blood Bank, Bikaner Matri Blood Bank, Suratgarh



Krishna Rotary Blood Bank Rajasthan MDM Hospital, Jodhpur



Adlakha Blood Bank, Punjab Mahila Chikilasalaya, Jaipur



Jeevan Dhara Blood Bank, UP Maa Pushpawati, Agra



Fatima Hospital, Gorakhpur SDMH Jaipur



Holy Family, Newdelhi St.Parmanand, New Delhi



Fortis Faridabad Alchemist Hospital, Panchakula



Neelam Hospital, Rajpura Raghunath Blood Bank, Punjab



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