

THE HINDU

India's National Newspaper

Printed at Madras, Coimbatore, Bangalore, Hyderabad, Madurai, Gurgaon, Visakhapatnam and Thiruvananthapuram

MADRAS, TUESDAY, JUNE 20, 1995

Blood bank in voluntary sector

From Our Staff Reporter

MADRAS, June 19.

Getting infection-free blood across the counter with all cross-checking done on demand could sound ideal and futuristic in the contemporary real-life situation wherein one has to run from pillar to post for a donor in times of emergency. But at 'Jeevan', a blood bank coming up in the voluntary sector here, this is expected to a reality.

This independent, non-profit organisation will also provide blood components such as plasma, red blood cells and platelets, a wastage-reducing practice which is yet to pick up in the country.

Absolute blood safety and availability of blood on demand are top on the priority list of the Lister Charitable Trust for Technology, Education and Research, sponsor of Jeevan. Each unit of blood will be screened in accordance with the protocols of the World Health Organisation (WHO) and the American Association of Blood Banks (AABB), eliminating all chances of transfusion-related infections. What the recipient would pay for the blood would only cover the cost of screening.

Speaking to *The Hindu*, Dr. P. Srinivasan, managing trustee of Jeevan, said the common practice in a majority of blood banks was to screen for only HBsAg and HIV. In the case of the HIV test, it would take 6 to 16 weeks for the antibodies to appear in the blood. During this period (window period), the blood sample would test negative, though in reality it was not. To over-

come this, P24 test, coupled with HIV 1 and 2, would make the blood sample safer. In the case of hepatitis, besides HBsAg, screening for anti-HBc and HCV (hepatitis C virus) would be done at Jeevan. The anti-HBc test would detect the individual who had hepatitis B infection anytime in the past. The HCV test was important as 90 per cent cases of post-transfusion jaundice was caused by this.

Another important virus that would be screened would be CMV (cytomegalovirus) which would worsen the condition of immunocompromised persons, said Dr. Saranya Narayan, microbiologist and one of the trustees. The SGPT (to indicate chances of liver damage), malaria, microfilaria and syphilis, heamatocrit, hemoglobin and other blood parameters would also be checked. The procedures would be automated.

The project with a capital cost of Rs. 70 lakhs depended on the support of the community and donors, Dr. Srinivasan said. 'Blood cannot be substituted, but can only be replaced'. If at least one lakh healthy adults in the city donated blood twice a year, it would serve the needs of the bank making it possible to supply blood on demand. The bank would have a capacity to store 1000 units of blood/components any moment. The initial response from the public had been encouraging, he said.

Selective component therapy

Transfusion of blood components as per requirement had become a global trend, he said explaining the rationale behind the separation

of components. There were only a few indications which needed transfusion of whole blood. Majority of the cases needed only 'selective component therapy' such as for instance, burn injuries needed only plasma and anemic patients needed only RBCs. In some cases, transfusion of whole blood instead of required component could even prove fatal.

On the other hand, separation of components resulted in incredible shelf life. For example, while whole blood could be stored only for 31 days, red cells could be stored for 10 years and plasma for one year. It minimised transfusion-related reactions and increased the utility rate by 40-60 per cent. For the same reasons, in the U.S. it was regulated that 90 per cent of the blood ought to be stored as components.

The Trust would also work as a centre for training personnel on modern technology in transfusion medicine. Plans for education of the community, basic research, screening for thalassemia and study of prevalence of rare antibodies were also on the anvil, Dr. Srinivasan said. About 5 to 10 per cent of the stock would be reserved for the poor. In the second phase 'Jeevan' would have facilities for autologous transfusion in which a person going in for a selective surgery could plan in advance and use his own blood for transfusion.

Though the centre was designed to serve the city, the ultimate aim was to become a model to be replicated all over the country. "However, a project of this nature can become a success only with the active participation of the community," Dr. Srinivasan added.