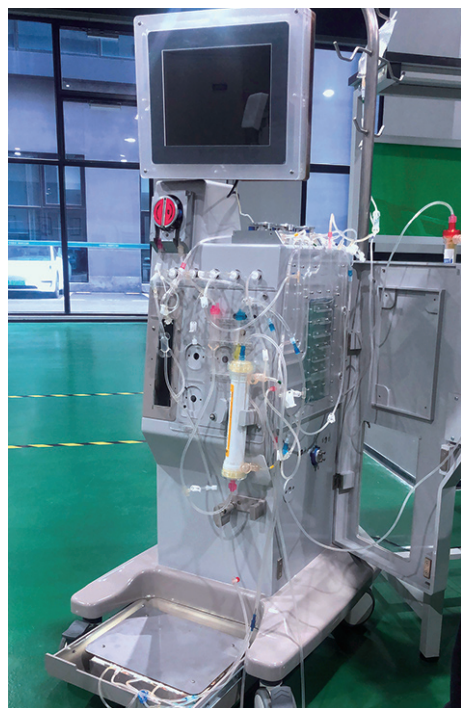


Information technology enables donors to see how their blood helps a patient



The sample machine can collect blood and do pathogen inactivation at the same time. — Ti Gong

Cai Wenjun

Blood is precious because it cannot be produced. The only way to obtain blood for clinical use is through volunteer donation.

Making blood donation more convenient, efficient and organized is among the top priorities for Shanghai authorities.

“Our public WeChat account can fulfill the entire blood donation process, from reservation, blood test result to whereabouts of the blood, record checking on donation history, awards for top donors and application for blood use,” said Zou Zhengrong, director of the Shanghai Blood Administration Office.

When people want to donate blood, they can look up the information of each blood collection site, which includes the address, working hours and contact information. People who want to donate platelets can book a

seat, because the process takes about an hour.

They can check the results of their blood tests after donation, with detailed results for each item. The result is also available while privacy is protected for those whose blood is not qualified.

“The highlight, which is the first of its kind in the world, is that donors can see when and where their blood is transported for clinical use,” Zou said. “There is even a route that connects the blood center to the hospital. It is extremely encouraging for donors who are glad that their blood is used to help a patient.”

The entire blood collection, use and transportation process is monitored and managed by a single system, which displays real-time collection quantity at each donation location, blood storage at each district- and city-level blood center, blood storage at each hospital and blood deployment between districts and provinces.

“It is an intelligent system that

monitors the city’s entire blood issue,” Zou said. “It can generate an alert in the event of a potential blood shortage or forecast potential blood demand based on historical data.

“We can take steps to ensure clinical use. As we can see their storage in the system, blood allocation between hospitals will become more reasonable,” he explained. “The system will also update in response to health management and patient demand.”

“We are thinking about an evaluation function for each major disease that requires blood transfusion in order to regulate blood use and drive medical progress. For instance, the system will be able to track each hospital’s use of blood during hip replacement surgery,” he added. “Blood transfusion is an important data point in determining the risk and complexity of the surgery, as well as the ability of each surgeon.”

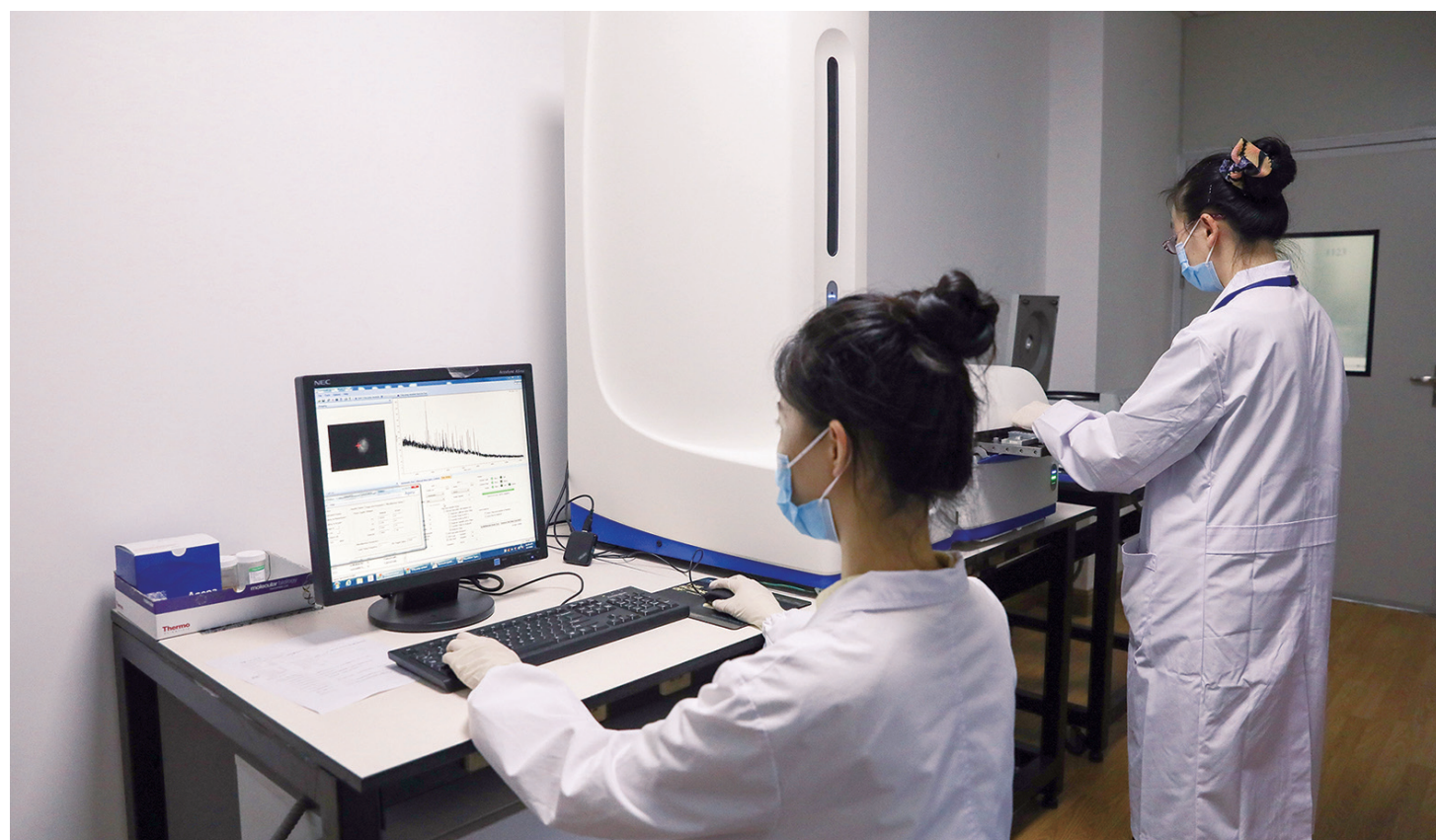
“With this information, we can better predict and manage blood allocation and use,” Zou said.

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Zou Zhengrong

Director of the Shanghai Blood Administration Office



Lab staffers conduct rare blood tests at the Shanghai Blood Center. — Photos by Jiang Xiaowei