

# New machine gives hope to leukemia, sickle cell patients

By Betty Amamukirori

A man lies in bed at a hospital, his arm connected to a machine by a set of tubes through which blood from his body flows into it.

The high-tech equipment, known as an Apheresis machine, filters his blood and cleanses it before pumping it back into his body, giving him not only relief, but also a probable cure from cancer or sickle cell disease.

This is the new technology that the Joint Clinical Research Centre (JCRC) has acquired, giving hope to patients with complicated blood conditions.

Speaking at the launch of the machine yesterday, the JCRC executive director, Dr Cissy Kityo Mutuluza, said the machine heralds a new dawn in the management of patients with complex blood disorders that have often been referred abroad for treatment.

"Many patients who fly out of the country for this specialised treatment will no longer do so because we are now capable of offering the same treatment here in Uganda," she said.

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## BETWEEN THE LINES:

■ The machine filters his blood and cleanses it before pumping it back into his body and the entire process takes a period of one hour.

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Her deputy, Dr Francis Ssali, said the machine would give sicklers relief from the pain, reduce the management burden on the family and the country and give patients a longer and healthier life.

He said 14% of the country's population was carrying the sickle cell disease and this had placed a

huge burden on the economy and the family that has to spend huge sums of money on managing the disease.

### How the machine works

Apheresis is an automated procedure that involves the drawing of blood from an individual and passing it through a machine that is able to separate the key individual components of the blood.

The blood component of a clinical interest is then replaced or collected (based on the need) while the other components are infused back into the individual's body.

The machine that spins and separates blood is called a centrifuge. Micheal Tumwine, a research nurse at JCRC, said it separates the blood based on the weight.

The process takes approximately one hour. The machine helps to manage and treat immunological diseases such as renal, neurological

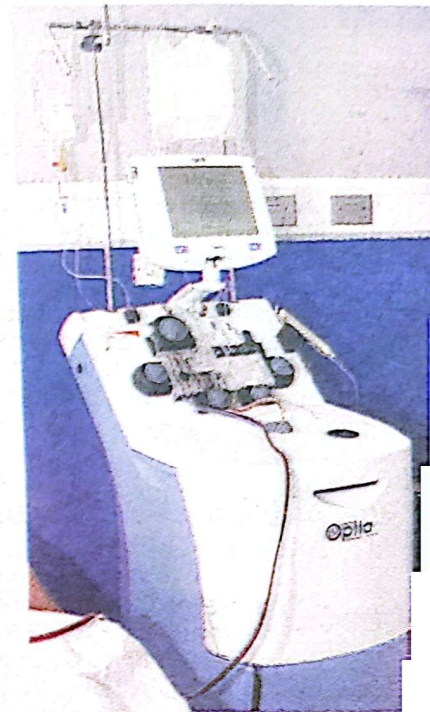
and hematological complications as well as metabolic diseases.

Though commonly used in European countries and South Africa, the machine is the first of its kind in Uganda. It was brought in six months ago and has been operating at the centre mainly helping sicklers in critical condition.

The machine can be easily moved to a patient's location in case one is not able to go to the centre.

According to Ssali, they collaborated with Terumo, an international medical device company and Konrad Science Ltd, to bring in the machine. It costs between \$70,000 and \$100,000 (between sh256m and sh365.7m).

He said each kit used on one patient costs \$350 (about sh1.2m), but was cagey on how much each patient pays, saying at the moment they were offering the service to those who can afford to pay for the service.



An Apheresis machine clean blood and pumps it back into body. It was launched by JC yesterday. Photo by Juliet K