

Quebec announces register to add genetic typing to blood transfusions

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MONTREAL - Quebec's blood agency announced Tuesday it is setting up a registry of blood donors that is genetically typed to ensure ease in blood transfusions.

Genome Quebec, which will team up with blood agency Hema-Quebec, says the registry is the first of its kind in the world.

The plan aims to give instant genetic profiling of blood donors to ensure complete compatibility during transfusions.

Most people know there are four main blood groups - A, B, AB and O - and that they may have a positive or negative factor. However, the existence of some 300 other blood groups is less well known.

The blood group is determined by the presence of antigens on the surface of red blood cells and their presence may cause discharges, particularly in patients that receive frequent transfusions.

Other patients have specific needs because of a blood profile.

So far, the presence of antigens in a blood product is determined on a case-by-case basis through lab tests.

The register will contain the genetic data of about 22,000 regular donors within the next two years but will only be up and running in about three months, when about 2,000 profiles are logged.

The register will cost between \$600,000 and \$700,000 but experts believe it will generate savings because it will eliminate many laboratory tests.

"Usually, we will test an antigen at the same time and it's very long," said Nancy Robitaille, medical director of the blood bank at Ste-Justine Hospital.

"With the register of 22,000 (names), it gives us a huge base of donors and I can get my shopping list and say 'I need such and such blood group'."

Although research in this direction is continuing around the world, Quebec will be the first place where such a registry will be based, said Paul L'Archeveque, president of Genome Quebec.

Genome Quebec intends to explore the possibility of exporting its expertise.

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