Have you heard about Canadian Blood Services’ Rare Blood Program?

On the surface of our red blood cells are proteins called antigens. There are more than 600 known antigens — and some combinations of antigens are far less common than others. Blood is generally considered rare when one person in 500 is negative for a single specific antigen, or if one person in 500 has the same combination of antigens.

In May 2018, Canadian Blood Services launched a Rare Blood Program. The program was established to allow us to evolve from an ad hoc program, where we responded when a need was identified, to a proactive formal program that uses genotyping and serological typing to identify donors with rare antigen combinations or who lack specific antigens. This program also allows Canadian Blood Services to establish a rare units inventory, and develop defined processes for replenishing rare units as they are transfused.

Genotype testing has identified several donors of interest over the past few months, including donors who were U negative, Lub negative, and RzRz (DCE/DCE).

Hospital patients who develop antibodies because they lack a common occurring antigen can be rare. Such patients will be issued a pamphlet and card explaining their rare status situation. Siblings of such patients are the best option to have inherited the same rare antigen type, other family members are less likely to share the same type. In these circumstances, we ask that patients and transfusion services encourage siblings of patients to identify themselves to Canadian Blood Services for further testing. Patients could also become future blood donors.

The initial focus of the Rare Blood Program is on rare red blood cells (liquid and frozen inventory) and end to end processes. When a request is received and after consultation with Canadian Blood Services, an internal search for a suitable unit is performed. If a unit or eligible donor cannot be located, our team will contact other international blood systems to determine if they have a suitable unit, or donor that can donate.

To close the loop, we are now consistently collecting rare units utilization and follow up data. This includes whether the rare unit was transfused to the intended patient, was discarded, or was returned to Canadian Blood Services on an exceptional basis. Returned units may be frozen for future transfusion needs. The Rare Blood Program will also initiate follow up consultation with the hospital to determine the outcome of the transfusion, as well as the patient’s outcome.

Read more about Canadian Blood Services’ Rare Blood Program [here](#)
Blog post: Rare blood: a program to ensure access to blood no matter how rare

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