Canadian Blood Services chronically experiences nationwide shortages of O Negative red cell units. In order to conserve this precious resource, effective July 2 2014, CLS Transfusion Medicine began providing O Positive unmatched red cells to some rural hospitals including the Vulcan General Hospital. This practice has been in place for several years at many other small centres around Alberta.

The main concern with using O positive red cells as unmatched blood is the possible formation of an anti-D by an Rh negative woman of childbearing age (less than 55 years old).

When deciding whether or not a site should stock Rh neg or Rh pos red cells, the records for unmatched blood transfused to patients in the previous 2 years at each rural site were reviewed. Unmatched blood in Vulcan was only used twice in the last 2 years. Both patients were over the age of 75 and Rh positive. It could not be determined how often unmatched blood was transported with a patient from your site. However, STARS now stocks 2 units of O Negative blood on all their flights originating from Calgary therefore the chance of having to send the stock unmatched units with a patient being transported is extremely low.

Transfusion Medicine feels that the risks associated with transfusion of O positive red cells are small as 85% of the population is Rh positive and women of childbearing age rarely require emergency transfusion at sites that do not provide maternity services. CLS Transfusion Medicine has been transfusing O positive unmatched red cells to adult male patients at the Calgary hospital sites since May 2011 with no deleterious effects. If a patient is hemorrhaging enough to warrant the transfusion of unmatched blood, the patient's system is too challenged to mount an immune response and form an antibody. By the time the patient has been stabilized, the 2 units Rh positive blood have most likely bled out.

A report prints daily at FMC containing all Rh negative patients who have received an Rh positive platelet or red cell, each occurrence is reviewed by senior technologists at Foothills Medical Centre. These cases are taken to the Transfusion Medicine Physician for follow up recommendations. Should an Rh negative woman of child bearing age receive O positive unmatched red cells, she can be treated with Intravenous Immune Globulin to decrease the risk of formation of anti-D. The TM physician would contact the patient's physician at their current location to convey the necessary information.
Please do not hesitate to contact me if you have any questions

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