2011-07-18

Dear Customer,

**Executive Summary:**

In August 2011, Canadian Blood Services will implement a standardized Red Cell Phenotyping Testing Program. Testing will include mass phenotyping for eleven common red cell antigens, with the goal of building a database of phenotyped donors over the next five years. This testing will be performed at the Donor Testing Laboratories in Calgary and Toronto. The program will assist with supporting customer phenotype requests across the country. As per current process your local Canadian Blood Services Centre will maintain a stock of phenotyped red cells. There will be no change to the process for requesting phenotyped units, and no change to how phenotypes are shown on the unit label.

**Background:**
Canadian Blood Services currently performs phenotype testing to meet customer demands in various locations and departments throughout the organization. The process differs between regions and is not standardized.

**Phenotyping End-Labeling Process:**
PROGESA functionality requires the phenotype to be tested twice on a donor before it will print on the Red Cell End Label. Initial and Confirmatory testing must be performed on two separate donations.
- Confirmatory phenotype result is entered before the Red Cell is ‘End-Labeled’- the phenotype result will print on the ‘End Label’.
- Confirmatory testing was performed on the current donation - the phenotype result will be underlined on the Red Cell ‘End-Label’.
- Confirmatory phenotype result is entered after the Red Cell is ‘End-Labeled’- the phenotype result will not print on the ‘End Label’ (a Phenotype Tag maybe be applied see Attachment #1).
- Confirmatory testing performed and the phenotype result has been tested twice – phenotype will print on the Red Cell ‘End-Label’ on all subsequent donations.

**New Standardized Practice:**
In an effort to standardize our process across the country and to increase our capacity to meet customer requests for phenotyped units, mass phenotyping and demand phenotype testing to meet hospital customer requests will be performed in the two Donor Testing Laboratories. This will be a staggered implementation from August 2011 to March 2012 and will have no impact to the customer process for requesting antigen negative red cells.

The donor testing laboratories will develop a mass phenotyping plan with the aim of increasing the database of phenotyped donors in the next five years. This would allow Canadian Blood Services to fill most hospital requests for phenotyped units from labeled inventory.
Donor Testing will routinely screen for the following eleven common clinically significant antigens: C, E, c, e, K, Fy^a, Fy^b, Jk^a, Jk^b, S and s. Canadian Blood Services will not perform phenotyping for non-clinically significant antigens. Canadian Blood Services will strive to provide requested phenotyped units for rare/low and high prevalence clinically significant antigens. Individual requests for additional antigens may be discussed directly with the local Canadian Blood Services Medical Director. Requests for phenotyping of CMV negative units will be assessed on an individual basis.

**How will you know if a phenotype result has been confirmed?**

As per current process if a phenotype test result, underlined or not, prints on the ‘End-Label’ it can be considered a confirmed test result. Retesting for the antigen/phenotype is not required prior to crossmatch.

If confirmatory phenotype test result entry is performed after the Red Cell has been ‘End-Labeled’, a ‘Phenotype Tag’ will be attached to the Red Cell with a comment ‘This donation has been tested and found to be Negative for the Encircled Antigens’ and a note ‘Please crossmatch with a fresh specimen’.

**An example of an End Label or Phenotype Tag confirming the antigen test result is provided in Attachment #1**

Sincerely,

Dana Devine, Ph.D.
Vice President, Medical, Scientific & Research Affairs
Example of an End Label or Phenotype Tag confirming the antigen test result

Confirmed Phenotype is shown here

Phenotype is shown here by circled antigens

Share your vitality  Partagez votre vitalité