Canadian Blood Services
it's in you to give

2008-01-15

All Obstetricians
Family Physicians
Blood Banks

In an effort to standardize practice, Canadian Blood Services (CBS) centres have recently reviewed the recommendations of a number of professional organizations in order to define best laboratory practice in the area of prenatal serologic testing. The main changes include:

1) Schedule of testing - recommendations for testing have been standardized as follows:

A. For women with no antibodies (or history of antibodies).

Rh negative Women		Rh positive Women	
@ initial visit	@ 26-28 weeks gestation (collection prior to RhIg Administration)	@ initial visit	@ 26-28 weeks gestation (unless blood group has been determined on 2 separate occasions)

For Saskatchewan, the key changes are: - elimination of:

a) a second sample at 28 weeks for Rh positive patients with two previous reports on file
b) routine testing for Rh negative patients at 36 weeks and post-partum.

These changes will be reflected in lab reports you receive.

B. For Rh positive or negative women with antibodies – regular surveillance through pregnancy.

For patients with antibodies, the methods used to titrate and follow titres have also been standardized.

2) Rh testing - with well over 100 recognized Rh alleles, the technical issues of D antigen testing have become increasingly complex. Fortunately in the Caucasian population only 2% of Rh negative (or 0.3% of all patients) will have either partial (missing epitopes of the D antigen) or weak D (incomplete antigen expression). In order to appropriately triage patients with genetic variations of the D antigen, CBS has chosen a combination of monoclonal reagents specifically designed to identify those patients that have the ability to produce antibody (and therefore benefit from administration of RhIg) and those who do not (and therefore should not be unnecessarily exposed to a blood product). Protocols are also being developed to further investigate patients with rare phenotypes by molecular techniques.

Because of the goal of Rh testing in prenatal patients is different from the goal in potential blood recipients, it is expected that hospitals will occasionally find patients with discrepant Rh results for CBS (these are usually not laboratory errors but are an expected finding given the different reagents and different goals of testing).

3) Laboratory Information Systems - CBS is currently upgrading their laboratory information system which among other things will allow us to eliminate handwritten reports (expected date of change approximately 6 months).

If you have any questions with the forgoing, I can be reached at (306) 347-1652 or (306) 766-2244.

Yours sincerely,

E.C. Alport, MD, FRCPC
Medical Director