Interpreting Indeterminate Rh Status of Pregnant Woman in Nova Scotia

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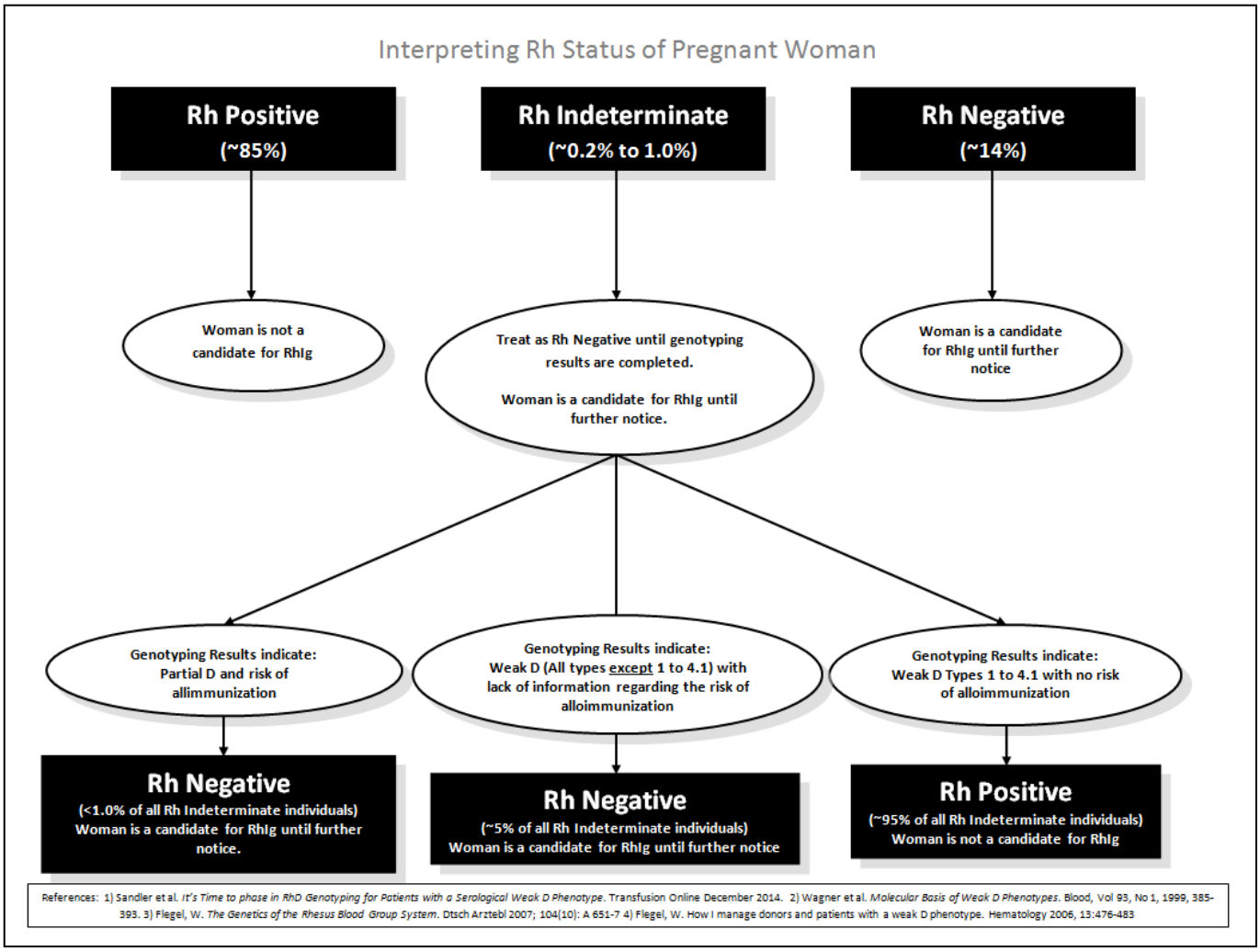
Along with the Nova Scotia Rh Program, the Nova Scotia Provincial Blood Coordinating Program (NSPBCP) has facilitated a provincial approach to Rh testing and reporting for weak D and partial D Rhesus antigens that as a group are described as Rh indeterminate. This is important for a small number of pregnant women to avoid the risk of red cell isoimmunization (Rh disease).

A small portion of the population (0.2 to 1.0 percent) exhibit a weak or partial D genotype (Rh indeterminate). Literature published by Flegel (2007) provides information which demonstrates the importance of identifying the Weak and Partial D population. Individuals presenting with weak D are historically defined as having a reduced amount of D antigen (quantitative) on the surface of their red blood cells, while those exhibiting partial D have a mutated D antigen (qualitative). Current practice allows technologists to flag all these individuals as Rh Indeterminate and then further testing is done at an outside reference lab to allow confident documentation about whether a pregnant female is exhibiting the weak or partial D phenotype and whether she should be considered Rh negative or positive.

Although the percentage of the population exhibiting these genotypes is low, proper determination of Rh status allows health professionals to administer Rh immunoglobulin only to those who are truly able to produce Anti-D antibodies and eliminating unnecessary exposure of this blood product to others. Alternatively, for those who are determined to be Rh positive through this enhanced testing, Rh positive red cells can be used in the event a transfusion is needed.

Pregnant women with weak or partial D status will initially be documented as Rh Indeterminate until further testing is performed to determine the actual D phenotype. This is the only change to current reporting practices which clinicians will see. As is described in the algorithm below, these women should be treated as Rh negative until final test results are received.

All indeterminate results will be reported to the Nova Scotia Rh Program. The Rh Program will notify primary caregivers and also provide the algorithm on management that is part of this document. Final results and recommendations will also be forwarded when they become available.



In summary these changes provide standardized provincial testing and reporting for Rh indeterminate status and within this group will also ensure that Rh immunoglobulin prophylaxis (WinRho) only be given when there is a true risk for sensitization.