

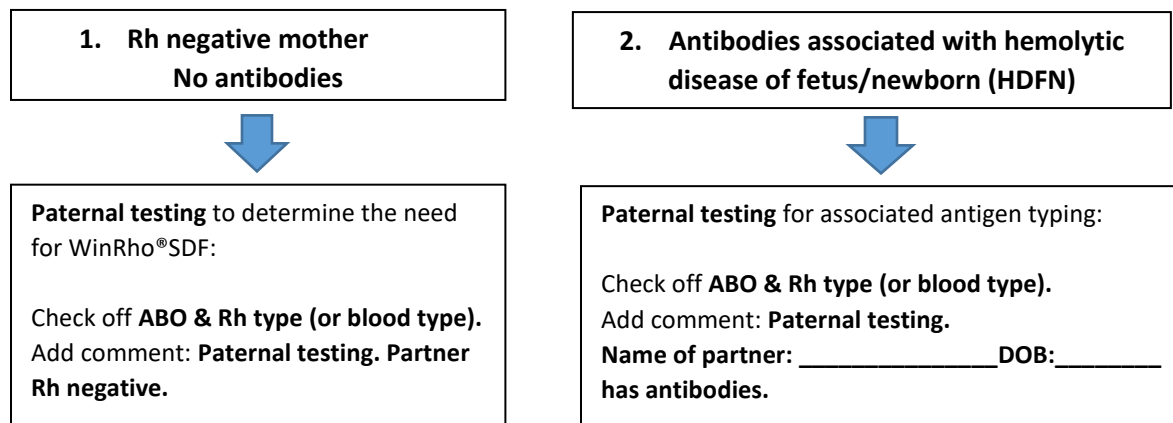


Paternal blood type testing in pregnancy

To ensure the appropriate management of a pregnancy for both mother and fetus, a maternal blood group and antibody testing is performed after the first prenatal visit and again at 24-28 weeks' gestation. A fetus who may have inherited a father's blood type/Rh(D) type or other antigens is considered a potential "donor" to the mother and may stimulate a maternal immune response directed towards the corresponding antigen on the fetal red blood cells and cause hemolytic disease of the fetus and newborn (HDFN).

Here are the two situations when paternal blood type testing is done:

1. The prevention of HDFN due to Rh(D) incompatibility requires the prophylactic administration of Rh immune globulin (WinRho®SDF). Women who are identified as Rh negative are considered candidates for Rh immune globulin (WinRho®SDF). If the biological father's blood is tested and found to be Rh negative this is reassuring, but the laboratory will then do an additional more sensitive test known as a weak D test to ensure that he also does not have a weak Rh(D) antigen expression that could lead to a maternal immune response. Weak D testing is not done routinely on Rh negative individuals. As a result laboratories **need to know when a paternal blood type is being requested** to ensure that complete testing is performed. If the father is determined to be weak D negative, he then can safely be considered to be Rh negative. In this circumstance he cannot "donate" the Rh(D) antigen to the fetus and in turn the fetus cannot act as an Rh(D) donor to the mother. In this situation Rh immune globulin (WinRho®SDF) can be omitted, eliminating the unnecessary transfusion of a blood product.
2. Another circumstance when paternal blood typing is helpful is when the mother is known to have antibodies associated with HDFN. Testing the biological father for the associated antigen can help determine the chance that a fetus/newborn will be affected by the maternal antibodies.



NOTE! For paternal testing DO NOT check off "antibody screen". This is not required and creates unnecessary lab work and cost.

If you have any further questions, please contact the Rh Program of Nova Scotia at 902-470-6458.