Gentle Beginnings Midwifery
Educational Handout
Rh Negative in Pregnancy

What does it mean to be Rh negative?
Our red blood cells carry substances on their surface described as antigens, of which ABO blood groups (or blood types A, B, AB, & O) and the Rhesus systems(Rh negative or positive) are the most important. Rh positive blood is the most common, with only 16% of the population being Rh negative. Further, only 10% of all births are Rh positive babies born to Rh negative mothers.

Since a baby inherits its blood type from both parents, an Rh negative mother can be carrying a Rh positive fetus if the biological father is Rh positive. If the father is also Rh negative then the baby will also be Rh negative.

What is the concern in pregnancy?
Usually during pregnancy, your blood and your baby's blood never mix due to a barrier at the placenta site. If there is a mixing between you and your baby's blood, your body would recognize the Rh Positive blood as an "intruder" and this can start an immune response that will produce antibodies to get rid of the "intruder" Rh positive blood. The development of these antibodies an cause serious illness to a baby (especially in future pregnancies) as the antibodies could attack and try to destroy the Rh positive blood in the baby.

Some of the ways blood can be mixed:
- trauma to the placenta : This can be caused by an abdominal trauma during a severe accident – a bad fall, a car accident, physical abuse, placental abruption (placenta detaches from uterus) etc...
- during miscarriage or abortion
- twin pregnancies
- molar (a false pregnancy) and ectopic (pregnancy in the fallopian tubes) pregnancies
- during tests such as chorionic villi sampling and amniocenteses (genetic testing only done after discussion)
- during a procedure called ECV (external cephalic version) which is a treatment for breech presenting fetus.

The most common time for this to occur is at the time of delivery, especially if the woman bleeds more than usual (hemorrhage).

What can be done?
To prevent you from having an immune response if the Rh positive blood from the baby gets into your circulation, a medication called WinRho (an Anti D IgG) is offered at 28 weeks pregnant, or after one of the occurrences stated above, and/or after labour and delivery to prevent the development of antibodies.

What is WinRho?
It is a "blood product" which means is has been obtained from human plasma. Here in Canada it has never been associated with infections such as HIV, syphilis, Hepatitis B or C as in other countries. All blood collected for making the drug undergoes repeated testing to insure its safety. WinRho is usually given as a needle in the arm or buttock area of the woman's body but can also be given through an IV. Your care provider will run a blood test prior to giving you WinRho and sometimes after the drug is given in order to assess your antibody levels (which shows us if an immune response has been started). Negative reactions to this drug are rare, but some women report some swelling at the site of injection, headaches, chills, a rash, and/or itching and rarely but sometimes shock.

Does it always work?
Since the discovery of WinRho rates of mother's having an immune response to their babies blood during pregnancy, and the illnesses this can create in baby, has been reduced. However, it still can occur in 1-2% of women (or .4 per 1000 births). This is usually due to failure to administer WinRho at the appropriate times. If WinRho is not given after the birth of the baby (which again, is the most common time for baby's blood and mothers blood to mix) it has been found that in the woman's next pregnancy she mounts an immune response to the baby if it has Rh positive blood 12-16% of the time. If WinRho is administered after delivery then that risk is reduced to 1.6-1.9%. WinRho is most effective if given within 72 hours of the baby's birth, however can be given up to 28 days after delivery. On occasion a woman will need more than one dose of the WinRho if the woman's blood test after the baby is born comes back suggesting a large amount of fetal blood mixed into mothers blood.

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