Evaluation and management Rh(D) Negative in Pregnancy

1. Definition or Key Clinical Information*:* A person who is Rh(D) negative is someone who lacks the Rh(D) protein on the surface of their red blood cells. Before and after pregnancy there are no risks associated with being Rh(D)-, however during pregnancy this can be dangerous for the fetus depending on whether or not they are Rh(D) negative or Rh(D) positive. If Rh(D)+ blood (from the gestating parent) mixes with Rh(D)- blood from the baby this can cause what is called Rh sensitization (ACOG 2017).

2. Assessment

i. Risk Factors: Risk factors for sensitization: Other biological parent is Rh(D)+, Hx of the following: recurrent pregnancy loss, stillbirth, neonatal death with unknown causes, blood transfusion with no prophylaxis, invasive procedures such as an amniocentesis.

ii. Subjective Symptoms: No known subjective symptoms.

iii. Objective Signs: Slow: No known Objective signs

iv. Clinical Test Considerations: Blood typing (ABO) & Rh factor at the initial prenatal visit. Antibody screening (indirect coombs' test) at initial visit, 28-30 weeks GA or as indicated.

3. Management plan

i. Therapeutic measures to consider: Prophylaxis immunoglobulin (RhIG) to prevent those that are at risk for sensitization (Rh-, with a possibly Rh+ fetus) routine at 28-30 weeks GA and within 72 hours in the postpartum period. Specifically if the status of the baby's is Rh positive, or unknown. This treatment is only good for the pregnancy in which it is given (Delaney 2022). If client has had an ectopic pregnancy, amniocentesis, CVS, Fetal blood sampling, bleeding during pregnancy, trauma to the abdomen during pregnancy, or an ECV this would warrant giving a dose of the immunoglobulin prior to 28-30 weeks GA.

ii. Complementary measures to consider: While focusing on complementary measures, the goal is to prioritize healthy placental attachment and overall health–as this is typically one of the bigger risks during pregnancy for possible blood mixing. Good nutrition for the gestating person around the time of conception can aid in healthy placental development and attachment, leafy greens, healthy oils and high fibrous foods are recommended. Avoiding procedures or activities that would disrupt the placenta. Avoiding contact sports, heavy lifting and other possibly unsafe activities for a newly pregnant person. In addition gentle placental delivery after birth to avoid mixing any placental blood and parental blood.

iii. Considerations for pregnancy, delivery and lactation In order for the fetus of a biologically Rh(D)- to be Rh(D)+ the other biological provider would need to be Rh(D)+. Without complex testing it is not possible to know what the fetus is in these cases. However, if both biological providers are Rh(D)- then the fetus will be Rh(D)- and no prophylaxis is indicated.

iv. Client and family education Provide clients with verbal education on what it means to be Rh(D)-, why it is a significant finding, what the recommended testing is before and after the birth of the baby, what cord blood collection means and how it is done. Many people have never heard of Rh(D) and they will not know how it can impact them. Discuss with

clients prophylaxis, benefits and risks. Additional resources including a handout on “Rh(D)- and Immunoglobulin (RhIG) in pregnancy. Refer them to ACOG’s website on Rh Factor in pregnancy
https://www.acog.org/womens-health/faqs/the-rh-factor-how-it-can-affect-your-pregnancy
v. Follow-up If the Immunoglobulin was given and birth has not happened within 12, a second dose is recommended.
-Follow up testing, for those who are Rh negative follow up testing must be done, this testing is done by collecting cord blood to test the baby’s blood type and factor. When cord blood is collected, it *must* not be contaminated with any other blood. Once cord blood is collected it needs to be sent in for a Direct Coombs test. An antibody screen is recommended for future pregnancies.
-For clients that have declined PP RhIG and antibody screening is recommended at 3-6 months postpartum.
4. Indications for Consult, Collaboration or Referral If a client a positive antibody screen, positive Direct Coombs, or has developed antibodies immunoglobulin is no longer an option, these clients should have fetal wellbeing checked frequently and consult with an OBGYN before giving birth (King., et al 2019). In this case a transfer to OBGYN care may be necessary.

5.References

Delaney, S. (2022 March 17). [Webinar]. MDWF 2010, Midwives College of Utah.

The American College of Obstetrics and Gynecology (2017). The Rh Factor: How it can affect your Pregnancy. ACOG.
https://www.acog.org/womens-health/faqs/the-rh-factor-how-it-can-affect-your-pregnancy

King, T. L., Brucker, M. C., Jevitt, C., & Osborne, K. (2019). Pregnancy Related Conditions. *Varney's midwifery sixth edition*, Jones & Bartlett Learning.