

Rh IMMUNOGLOBULIN (MATERNITY CLINIC)

I. DEFINITION:

A. What is Rh Sensitization?

1. Rh sensitization occurs when an Rh negative woman forms anti-D (Rho) antibodies following an exposure to Rh positive red blood cells.
2. Once sensitization occurs, (i.e., a woman is actively producing anti-D (Rho) antibodies which destroys Rh positive blood) the process is irreversible. All future Rh positive infants conceived by this sensitized woman will be affected to some degree by hemolytic disease of the fetus and the newborn.

B. What is Rh Immunoglobulin?

1. Rh immunoglobulin is a specific immunoglobulin (IgG) that contains anti-Rho (D) and is prepared in a sterile concentrated solution for intramuscular injection.
2. The trade name of the globulin may change from time to time depending on the pharmaceutical provider. The globulin is commonly referred to as Rh immunoglobulin or Rhogam.

II. CLINICAL FEATURES:

A. Subjective Information

1. Inquire about:
 - a. number of pregnancies including abortions
 - b. previous history of receiving Rh immunoglobulin injection
 - c. history of blood transfusions
 - d. history of receiving Rh immunoglobulin last delivery or abortion
2. Review prenatal history concerning previous pregnancies.

B. Objective Information

Laboratory studies which identify the Rh factor and antibody screen (indirect coombs) which determines the presence of an antibody.

III. MANAGEMENT PLAN:

A. Laboratory Studies:

1. Rh factor testing
2. Antibody screen testing
3. Rh and Antibody Screen at first prenatal visit
 - a. If Rh positive and antibody screen is negative; no further testing is needed.
 - b. If Rh positive and antibody screen is positive, refer to APRN or contact the OB provider.

- c. If Rh negative and antibody screen is positive, refer to APRN or contact the OB provider.
 4. If Rh negative and antibody screen negative, administer Rh Immunoglobulin.
 - a. Prevention is the most effective method of handling Rh incompatibility. All Rh (D) negative pregnant women should receive Rh immune globulin at 28-30 weeks gestation and again after delivery of an Rh positive infant. If the Rh negative woman delivers an Rh negative infant, no post delivery treatment with Rh Immunoglobulin is needed.
 - 1) 300 micrograms of Rh (D) immune globulin should be administered intramuscularly in the gluteus maximus, preferably using a 3 cc syringe and 22 gauge, 1 ½ inch needle. All information regarding the injection should be carefully documented on the client's chart.
 - 2) A consent for administration of Rh (D) immunoglobulin is to be attached to each record and the date of administration needs to be charted on the prenatal record and the chart flagged.
 - b. Any client refusing Rh (D) immunoglobulin for religious or other reasons must sign a statement releasing the health department of responsibility.
 - c. If the Rh negative woman has received or needs to receive Immune Globulin (IG) at any time during her pregnancy, this does not contraindicate her receiving Rh (D) immunoglobulin at 28-30 weeks gestation. The Rh (D) immunoglobulin is a specific treatment for the Rh negative client to prevent sensitization.
 5. If a woman who is Rh negative, antibody screen negative, has been a client of the health department and has experienced a spontaneous abortion, elective abortion, or ectopic pregnancy, she may be considered eligible for Rh immunoglobulin. If the client has not received the Rh immunoglobulin injection at the primary care facility at which she was treated, she may present at the health department requesting such treatment. (If it can be verified that the fetus was Rh negative, it is not necessary to administer Rh immunoglobulin.) There has been no absolute time frame determined regarding the effectiveness of administering Rh immunoglobulin after Rh positive exposure has occurred. Although the 72-hour time interval is most effective, the client should be informed that the injection may still protect against sensitization, and even if it does not, it will cause no harm. The provider should be notified and a verbal or written order obtained for the injection. The Rh immunoglobulin should be obtained and charted in the usual manner.
 6. For the previously known Rh negative client who presents to the clinic after 28 weeks gestation, a blood specimen may be drawn for Rh and antibody screening and Rh immunoglobulin administration may be done the same day. The blood specimen to be sent for antibody screening must be obtained before the Rh immunoglobulin is given. Both of these actions should not be earlier than 28 weeks nor later than 39 weeks gestation. If the blood specimen, taken before the Rh immunoglobulin was administered, is found to have anti-D(Rho) antibody, no harm has been caused by the Rh immunoglobulin injected into the mother. However, the discovery of the anti-D(Rho) antibody in the sample taken before the Rh immunoglobulin injection would mean that the client was previously sensitized and must be referred to an OB provider. The APRN should also be notified.

7. Refer any episode of bleeding in a pregnant Rh negative woman to the APRN.
- B. Client Education:
1. Before administration of Rh immunoglobulin the client should be counseled and this documented on client's record. Client should read the current Rh immunoglobulin information sheet; be given an opportunity to ask questions; have her questions answered; then, sign the consent. The consent page should be placed in client's prenatal record.
 2. Client should receive an antepartum Rh immunoglobulin identification card supplied by the pharmaceutical company. Instruct the client on the importance of showing the card to delivery site personnel prior to her delivery.
- C. Consultation/Referral:
- All clients with a positive antibody screen should be referred to the Advanced Practice Nurse. If unable to reach Advanced Practice Nurse, contact OB provider.
- D. Follow-up:
- Chart should be well-marked noting that client is Rh negative and date of antepartum Rh immunoglobulin administration. Every effort should be made to communicate with client and delivery site.

REFERENCES:

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- King, T.L. & Brucker, M. C. (Eds.). (2011). *Pharmacology for women's health*. Boston: Jones & Bartlett.
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Individual Consent for HypoRho-D Antenatal Injection

Rh is one of many blood group antigens found on the surface of red blood cells. Those people having the antigen are called Rh positive. Those lacking it are called Rh negative.

When Rh positive red blood cells enter the bloodstream of an Rh negative person, the recipient may produce Rh antibodies, capable of destroying Rh positive blood cells. In hemolytic disease of the newborn, if antibodies to the Rh factor are allowed to develop, the life of a future child may be endangered because the mother's Rh antibodies can destroy the red blood cells of the fetus in the uterus.

To prevent Rh hemolytic disease, Rh negative women who have not yet developed Rh antibodies can be treated with HypoRho-D Antenatal injection which provides virtually complete protection by preventing the women from producing her own Rh antibodies. HypoRho-D Antenatal Injection is administered intramuscularly between 28-32 weeks of pregnancy as well as after delivery. An Rh negative woman should also receive HypoRho-D Antenatal Injection if she has a miscarriage or abortion after twelve weeks of pregnancy, even though the Rh type of the fetus cannot be confirmed.

Temporary soreness at the sight of injection or occasionally a slight, temporary fever may develop.

I am requesting HypoRho-D Antenatal Injection be given to _____. I have read the above statements and have been given the opportunities to ask questions. I understand the risk and benefits of HypoRho-D Antenatal injection and I release this day the nurse administering the serum, county health department and the Oklahoma State Department of Health from responsibility.

Signature

Date

Witness

Date