Saskatchewan Health Authority

WinRho® FAQs

For Healthcare Providers
PRAMS Program – November 2024

What is Rh Immunoglobulin/WinRho®?

Rh Immunoglobulin (RhIg, trade name WinRho®) is a freeze-dried preparation of human immunoglobulin of the IgG class with antibody specificity directed against the RhD antigen[10].

What is WinRho® used for?

The primary use of WinRho® is to prevent RhD antibody mediated hemolytic disease of the fetus/newborn (HDFN) during pregnancy in RhD negative (also called Rh negative) individuals. It prevents the formation of anti-D antibody in Rh negative individuals when they are exposed to RhD positive red cells (either in pregnancy if fetus is Rh positive or via transfusion)[1]. In the context of pregnancy, routine prophylactic administration of WinRho® is recommended to all RhD negative women at 28 weeks' gestation and following delivery of an RhD positive or RhD unknown infant.

When should WinRho® be administered?

Routine HDFN Prophylaxis: Routine prophylactic administration is recommended to all RhD negative women at 28 weeks' gestation (regardless of any other WinRho® doses given for potentially sensitizing events) and following delivery of an RhD positive or RhD unknown infant[2].

Potentially sensitizing events: Table 1 (see page 3) lists potentially sensitizing events for RhD negative individuals that lead to mixing of fetal and maternal blood. These events necessitate WinRho® administration. Whenever possible, WinRho® should be administered within 72 hours of a sensitizing event, but can be given up to 28 days after the event[2].

Sensitizing events in early pregnancy: For early loss or termination of pregnancy less than 10 weeks gestation, with confirmed dating, WinRho administration is not required[2, 3, 4]. If the gestational age is uncertain or was not confirmed by ultrasound, WinRho® administration is advised. The cut off for WinRho® administration in early pregnancy was changed in the light of recent update by the Canadian Society of Obstetrics and Gynecology, careful review of evidence and conversations between transfusion medicine physicians, MFM and TOP providers in the province.

What is the appropriate dose of WinRho®?

Table 2 (see page 3) provides WinRho® dosing recommendations for various clinical scenarios.

For sensitizing events between 10 and 20 weeks gestation, one dose of 120 mcg or 300 mcg is sufficient to prevent D-alloimmunization.

After 20 weeks gestation, testing for fetal-maternal hemorrhage (FMH) is strongly recommended to determine if more than one standard 300 mcg of WinRho® is required. It is reasonable to provide an initial dose of WinRho® immediately, while awaiting the results of testing for fetal-maternal hemorrhage (FMH) to determine whether a further dose is needed.

What type of testing is performed to evaluate for fetal-maternal hemorrhage (FMH)?

Definitive testing for FMH uses a Kleihauer-Betke (KB) test to quantify fetal cells in maternal blood.

One 300 mcg dose of WinRho® protects against D-alloimmunization by 15 ml of fetal red cells. The FMH test is very important in the setting of a potentially sensitizing event at or beyond 20 weeks gestation, as it helps to determine if more than the standard WinRho® 300 mcg dose is required to prevent alloimmunization[5, 6].

After delivery, a *rosette test* may be done as an initial screen to detect the presence of Rh positive fetal cells in the circulation of an Rh negative post-partum patient. If the rosette test is positive, then a KB test is done to quantify the fetal red cells and determine if more standard WinRho® 300 mcg dose is needed.

Testing for FMH is performed at the Transfusion Medicine Laboratories in Prince Albert (Victoria General Hospital), Regina (Regina General Hospital) and Saskatoon (Royal University Hospital). The FMH test is ordered using a local Transfusion Medicine Lab test request form. The *Request for Transfusion Medicine Testing* form should be used to request FMH testing for samples referred in to these centers. Routine FMH testing in post-partum Rh negative individuals will be performed during daytime hours only (7 days a week). Urgent FMH testing requires a telephone notification to the laboratory and is available 24/7. Samples collected for FMH testing are stable for several days.

If an FMH test is ordered and results are negative, is WinRho still required?

Yes. In the setting of a potentially sensitizing event (see Table 1, page 2), WinRho® 300 mcg should still be given. The purpose of the FMH test is to determine if a larger dose of WinRho® is required.

How often do I give WinRho® in my Rh negative patient with recurrent vaginal bleeding in pregnancy?

If a pregnant patient presents with recurrent minimal vaginal bleeding in pregnancy with negative FMH results, there may be consideration of giving a dose of WinRho® 300 mcg only once every 3 weeks. However, the routine 28 week WinRho® dose should still be given regardless of top-up doses given for potential sensitizing events[7].

Do I need to order a repeat Group & Screen in a pregnant patient with a potentially sensitizing event?

It is important for Transfusion Medicine to have a current Group & Screen on record to ensure only Rh negative peripartum patients without an immune anti-D receive WinRho®. If there is a historical blood group (ABO/Rh type) and at least 1 (one) Group & Screen from the current pregnancy available in the eHealth Viewer, then a repeat sample is not required. Otherwise, a Group & Screen should be collected and sent for testing.

Detection of passive anti-D from previous WinRho® administration on antibody screen should not be used to determine whether or not WinRho® is given.

How does the lab determine if more than the standard WinRho® 300 mcg dose is required?

Transfusion Medicine and/or Hematology staff are proficient in calculating a recommended WinRho® dose based on the percentage of fetal hemoglobin cells detected by the KB test. The patient care ward or most responsible healthcare provider will be contacted by telephone with any positive KB test result and a WinRho® dose recommendation if more than the usual 300 mcg is required.

How is the required dose of WinRho® ordered and obtained for a patient?

The laboratory will not automatically send the recommended WinRho® dose to the patient care unit. A WinRho® order by the most responsible healthcare practitioner is required and a product requisition must be submitted to the local Transfusion Medicine Laboratory for WinRho® issue.

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Table 1: List of sensitizing events for RhD negative peripartum patients necessitating WinRho® administration[2,8,9]

Delivery (by any method)	Spontaneous or therapeutic abortion (medical or surgical)
Antepartum hemorrhage	Ectopic pregnancy
Chorionic villus sampling	Abdominal trauma
Amniocentesis	External Cephalic version
Cordocentesis	Intrauterine Fetal Death

Table 2: WinRho® dosing [Note: 1 mcg = 5 IU][2,8,9]

Clinical scenarios	Gestational age	WinRho® dose
Abortion - medical, surgical or spontaneous; CVS or amniocentesis less than 12 weeks	10 weeks to 11 weeks, 6 days	120 mcg*†
	12 weeks or more	300 mcg
Threatened abortion**	10 weeks to 11 weeks, 6 days	120 mcg*†
	12 weeks or more	300 mcg
Routine antenatal prophylaxis at 28 weeks	Approx. 28 weeks	300 mcg
Routine postpartum prophylaxis (If RhD positive neonate)**	At delivery	300 mcg
All other indications** (e.g., trauma, bleeding in pregnancy)	10 weeks to 11 weeks, 6 days	120 mcg*†
	12 weeks or more	300 mcg

† May hold WinRho® if there is confirmation of gestational age less than 10 weeks gestational age.

* If WinRho® 120 mcg is not stocked, administer 300 mcg. DO NOT split 300 mcg vials into smaller doses.

** FMH testing required at or after 20 weeks gestational age.

Administration Notes[11]:

- ***WinRho® is a blood product that requires explicit informed consent to be obtained and documented by the most responsible practitioner prior to administration.***
- Routine prophylaxis may be given by intramuscular (IM) injection, although the intravenous (IV) route is often used post-partum when IV access is already in place.
- In all other situations, expert opinion suggests a preference for the IV route, to ensure good peak passive anti-D levels *in vivo*.
- There is no need to adjust dosing for Body Mass Index. However, if using the intramuscular (IM) route for administration, it is essential to ensure injection of the product into muscle rather than subcutaneous fat. The use of a longer needle (i.e., 1.5") into a deltoid muscle site should be considered. When injection of the product into muscle cannot be assured, intravenous administration of WinRho® is strongly recommended, to ensure good absorption and effective passive anti-D levels *in vivo*.

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Please direct any questions to the Transfusion Medicine Physician on call –

Northern Saskatchewan, through Royal University Hospital Switchboard: +1-306-655-1000

Southern Saskatchewan, through Regina General Hospital Switchboard: +1-306-766-4444

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