Guideline for Perinatal Antibody Screening and Rho(D) immune globulin (WinRho®SDF) Administration

IWK Health Centre

FIRST PRENATAL VISIT
Blood type and antibody screen

NEGATIVE ANTIBODY SCREEN or POSITIVE ANTIBODY SCREEN
NOT ASSOCIATED WITH **HEMOLYTIC DISEASE of the FETUS and NEWBORN [HDFN]**

Rh(D) NEGATIVE **

- Repeat antibody screen at 26-28 weeks **BEFORE** giving **WinRho®SDF** 300 µg at 28 weeks
- Repeat antibody screen **BEFORE** giving **WinRho®SDF** for any other indication (see reverse)
- **WinRho®SDF** not needed if baby's father documented to be Rh(D) negative*

NEGATIVE ANTIBODY SCREEN [or positive due to WinRho®SDF]

POSTPARTUM:

Rh(D) negative:

- Repeat antibody screen + Kleihauer **BEFORE** giving **WinRho®SDF**
- **WinRho®SDF:** minimum of 120 µg if baby is Rh(D) positive or Rh unknown*. Adjust dosage based on Kleihauer (see reverse).
- **Rh(D) positive:** no further testing

Rh(D) POSITIVE

- Repeat antibody screen at 24-28 weeks

NEGATIVE ANTIBODY SCREEN

- No further testing

POSITIVE ANTIBODY SCREEN

NON-HDFN

HDFN

POSITIVE ANTIBODY SCREEN *ASSOCIATED WITH* HEMOLYTIC DISEASE of the FETUS and NEWBORN (HDFN)

Regardless of Rh type:

1. repeat antibody screen **MONTHLY** until delivery or as recommended by the Rh Program.
2. Further direction regarding management will be offered by the Rh Program.
3. Test cord blood for ABO, Rh, Direct Antiglobulin Test (DAT), hemoglobin and bilirubin at delivery

Rh(D) negative:

Rh(D) negative women with HDFN antibodies **other than anti-D antibodies** are candidates for **WinRho®SDF**. Follow guideline for Rh(D) negative women (box on left side).**

*See dosage and indications for Rho(D) Immune globulin administration on reverse

For further information contact the Rh Program of Nova Scotia, 5850 / 5980 University, Avenue P.O. Box 9700, Halifax, Nova Scotia B3K 6R8
Telephone: (902) 470-6458 Facsimile: (902) 470-7468. Website: http://rcp.nshealth.ca/rh
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Indications for administration of Rho(D) Immune globulin (WinRho®SDF)
to Rh(D) negative women (without allo anti-D antibodies) unless father of the baby is documented to be Rh(D) negative:

► **Always confirm Rh negative status and draw antibody screen *BEFORE* administering WinRho®SDF. Obtain vital signs pre-administration; see notes below regarding administration. Testing is required within the previous 14 days. Some facilities require testing within 72 or 96 hours before issuing blood products.**

• ***28 weeks gestation:*** give **300 µg.** If **300 µg** is given *prior to* 28 weeks, a repeat injection is recommended 8 – 12 weeks later.
• ***Postpartum:*** obtain Kleihauer; give minimum of **120 µg** if infant is Rh(D) positive or Rh unknown. May withhold injection If WinRho®SDF has been given within the previous 3 weeks provided Kleihauer* is negative AND passive anti-D antibodies (due to Rho(D) Immune globulin) are detected at delivery.
• ***Spontaneous miscarriage or termination, ectopic pregnancy, partial molar pregnancy; abdominal trauma:*** up to 12 weeks gestation, give minimum of **120 µg**; after 12 weeks gestation, give **300 µg**.
• ***Antepartum bleeding (threatened miscarriage):*** up to 12 weeks gestation, give minimum of **120 µg**; after 12 weeks, give **300 µg**; repeat antibody screen and WinRho®SDF every 6 weeks if bleeding episodes continue; obtain Kleihauer* test for bleeding episodes in second and third trimester.
• ***Amniocentesis, cordocentesis, chorionic villus sampling (CVS):*** obtain Kleihauer and give **300 µg;** obtain Kleihauer + antibody screen for repeat procedures and give an additional **300 µg** if Kleihauer* is *positive* ***AND/OR*** antibody screen is *negative* [ie. passive anti-D antibodies due to WinRho®SDF are *not found.*]
• ***External versions, placental abruption, placenta previa with bleeding:*** give minimum of **120 µg** in combination with Kleihauer* testing due to risk of fetomaternal hemorrhage.
• ***Platelet transfusion if platelet donors are Rh(D) positive:*** **120 µg** covers up to 6 full buffy coat or apheresed transfused platelet units and protects for up to 4-6 weeks. WinRho®SDF should be administered within 72 hours of the transfusion. *Rationale:* Platelets from Rh(D) positive donors contain a small amount of red blood cells.
• ***Transfusion of Rh(D) positive red blood cells (RBC's) to Rh(D) negative recipient:*** **24 µg** per mL red blood cells (RBC's). *Caution*: see product insert for limitations, or consult with the Rh Program or your blood transfusion service.

****KLEIHAUER TEST DOSING for critical fetomaternal hemorrhage (FMH) of Rh(D) positive whole blood:***
Maternal circulation estimated whole blood volume = 5,000 mL. Administer 12 µg WinRho®SDF per mL of fetal whole blood (may use 10 µg per mL with IV administration).
120 µg protects for FMH of **0.0% to 0.2% of maternal whole blood volume (0.002 x 5000 mL = 10 mL fetal whole blood x 12 = 120 µg required)**
300 µg protects for FMH of **0.0% to 0.5% of maternal whole blood volume (0.005 x 5000 mL = 25 mL fetal whole blood x 12 = 300 µg required)**
Depending on dose calculated above: (1) administer **600 µg** every 8 hours **via the IV route** or (2) **1,200 µg** every 12 hours **via the IM route** until the total dose has been administered. Consult with the Rh Program for further assistance or refer to the product insert under "Dosage and Administration".
NOTE: 1. **Administer within 72 hours of event to ensure effectiveness** (if omitted, give *as soon as possible*, up to 28 days later).
2. Administer by **IV or DEEP IM route**, to ensure adequate absorption. ***Note:*** *the dorsogluteal muscle should* ***not*** *be used for IM injection. Rationale: variation in placement of the sciatic nerve; risk of decreased absorption and potentially the effectiveness of WinRho®SDF. Volumes of 2 mL or less can be given in the deltoid muscle. Volumes greater than 2 mL can be given in the ventrogluteal or vastus lateralus muscles.*
3. WinRho®SDF is a *blood product.* Recipients should be informed of the source and safety, and informed consent should be obtained. Consent forms are also available from the Rh Program. Refer to Rh Program pamphlet *The Rh Factor and Pregnancy.* All forms are also available on the website below.
4. Due to the possibility of a reaction to WinRho®SDF, vital signs should be taken pre-administration and recipients advised to stay for 15 to 30 minutes post-injection.
5. Injection reporting forms (3-part) are available from the Rh Program or our website. Please mail or fax a completed copy to the Rh Program as soon as possible.

References: Prevention of Rh Alloimmunization. SOGC Clinical Practice Guidelines No. 133, Sept 2003. JOGC Vol 25, No 9; Cangene Corporation website: www.winrho.ca
Perry & Potter. *Clinical Nursing Skills & Techniques.* Elsevier Mosby 8th edition, 2014.
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