



# Rh PROGRAM of NOVA SCOTIA

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To: Prenatal Health Caregivers in Nova Scotia

Date: January, 2010

**Re: Kleihauer formula adjustment for the administration of additional Rho(D) immune globulin (Rh negative recipient exposure to Rh positive blood)**

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The current formula used by the Rh Program to calculate additional amounts of Rho(D) immune globulin (WinRho®SDF *Liquid*) is based on **10 µg** of WinRho®SDF *Liquid* per ml of Rh positive whole blood (20 micrograms per ml of Rh positive red blood cells (RBC's)).

Cangene Corporation, producers of WinRho®SDF *Liquid* advise administering **12 µg** of WinRho®SDF *Liquid* per ml of Rh positive whole blood (24 micrograms per ml of Rh positive RBC's) when the product is given intramuscularly, as noted below:

### Transfusion Indication and Recommended Dose <sup>1</sup>

Route of administration	If exposed to Rho(D) Positive Whole Blood	If exposed to Rho(D) Positive Red Blood Cells
Intravenous	45 IU (9 µg) /mL Blood	90 IU (18 µg) /mL Cells
Intramuscular	60 IU (12 µg) /mL Blood	120 IU (24 µg) /mL Cells

In keeping with the recommendation of Cangene Corporation, the Rh Program is advising that our formula for calculating additional WinRho®SDF *Liquid* be altered. Since this product is mainly administered intramuscularly, we will now use **12 µg** of WinRho®SDF *Liquid* per ml Rh positive whole blood ( 24 ug per ml Rh positive RBC's) The standard dose of 120 µg will continue to be adequate for a Kleihauer result of 0.2%, and 300 µg is adequate for a Kleihauer result of 0.5%. Below is an example of our new formula:

**Example:**

Kleihauer result: 0.3% (0.003) of maternal blood is fetal blood.

Maternal blood volume estimate = 5000 mL

$0.003 \times 5000 = 15\text{mL fetal blood}$

$15\text{ mL} \times 12\ \mu\text{g} = \mathbf{180\ \mu\text{g}}$  of WinRho®SDF *Liquid* required.

**Plan:** Administer either two vials of 120 µg **or** one vial of 300 µg to provide adequate coverage in this example.

Caregivers can be reassured that our incidence of new women developing anti-D antibodies (8.7/year) has dropped significantly in the past 10 years to 5.7/year. Please contact the Rh Program if you have any questions regarding this change.

Michiel C. Van den Hof, MD FRCS (C)  
Director

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<sup>1</sup> WinRho®SDF Product Monograph, pages 19-20. [www.winrho.ca](http://www.winrho.ca)