

Transfusionists Talk – Transfusion Made Bloody Easy

**RH(D) IMMUNE GLOBULIN (Rhlg):
TRANSFUSIONISTS QUESTIONS ANSWERED ...**

March 18, 2025

Pre/Post Transfusion Knowledge Questions and the Answers with Rationale

1. Betty is currently 28 weeks pregnant, doing well and is Rh(D) negative. At 21 weeks pregnant, Betty was in a car accident and received Rhlg 1,500 IU for fetomaternal hemorrhage.

Select the correct statement(s) (select all applicable):

- a) Betty has received the appropriate Rhlg dose for the pregnancy, no further Rhlg is required.
- b) Betty requires routine antenatal Rhlg prophylaxis, give 1,500 IU now.
- c) Betty requires Rhlg within 72 hours of delivery, if Betty's newborn is of child-bearing potential and Rh(D) negative.
- d) Rhlg is a manufactured medication (has a DIN number), informed consent for blood is not required.

Answer: b).

Rationale:

b)

Per SOGC Clinical Practice Guidelines, for an Rh(D) negative gestational parent, routine antenatal prophylaxis is Rhlg 1,500 IU administered at 28 weeks gestation. This dose, along with postpartum prophylaxis, if the newborn is Rh(D) positive, is standard routine care for an Rh(D) negative gestational parent. These Rhlg doses are given regardless of whether Rhlg was previously given related to a sensitizing event/fetomaternal hemorrhage.

a)

The previous Rhlg given for the car accident/fetomaternal hemorrhage was related to that specific event. The routine antenatal and postpartum (if the newborn is Rh(D) positive) Rhlg dose(s) are required.

c)

For an Rh(D) negative gestational parent, postpartum Rhlg within 72 hours of delivery and quantification of FMH (to determine if additional Rhlg dosing is required) is standard of care if their newborn is Rh(D) positive. Whether or not the newborn is of childbearing potential is not relevant to the gestational parent's Rhlg requirement.

If Rhlg was not given within 72 hours of delivery, it should be given as soon as the need is recognized, for up to 28 days following delivery.

d)

Rhlg is a blood product, manufactured from human plasma. Informed consent as well as lot number traceability are required.

2. Rhlg must be given only to Rh (D) negative individuals.

- a) True
- b) False

Answer: a) if Rhlg indication is obstetric or transfusion.
b) if Rhlg indication is Immune Thrombocytopenic Purpura (ITP).

Rationale:

a)
For a pregnant Rh(D) negative individual or if Rh(D) positive red blood cells or platelets were transfused to an Rh(D) negative individual of child bearing potential, Rhlg is given so that its anti-D antibodies will destroy any circulating Rh(D) positive red blood cells (from the fetus or transfusion of Rh(D) positive red blood cells or platelets) before the individual's immune system has a chance to make its own anti-D antibodies.

b)
In Immune Thrombocytopenic Purpura (ITP), Rhlg's anti-D antibodies specifically bind to the patient's Rh(D) positive red blood cells. In the Rh (D) positive patient, the antibody coated Rh(D) positive red cells are thought to be preferentially destroyed by macrophages, thereby lessening the destruction of platelets. In turn, this leads to increased circulating platelets, alleviating ITP related bleeding.
For ITP treatment, Rhlg should NOT be given to Rh(D) negative patients or in patients who have undergone splenectomy.

3. Appropriate route of administration for Rhlg is (select all applicable):

- a) Intravenous (IV).
- b) Oral (PO).
- c) Subcutaneous (SC).
- d) Intramuscular (IM).

Answer: a) and d) if Rhlg indication is obstetric or transfusion.
a) if Rhlg indication is Immune Thrombocytopenic Purpura (ITP).

Rationale (per Rhlg product monograph):

a) and d)
When Rhlg is given for an obstetric or transfusion indication, it may be given via IV or IM route.

a)
When Rhlg indication is Immune Thrombocytopenic Purpura (ITP) it must be given via IV route. The efficacy of Rhlg in treatment of ITP has not been established by IM or SC routes.

b) and c)
Rhlg is not administered via PO or SC routes.

References:

Please refer to the references listed in the presentation.