Saskatchewan Health Authority

Date: 9th December, 2024

To: Healthcare providers offering early prenatal care

From: Dr. Sarah Tehseen, Transfusion Medicine Physician and PRAMS program provincial lead

RE: Changes in recommendations for RhIg administration in early pregnancy (8-12 weeks GA)

Canadian Society of Obstetrics and Gynecology recently updated recommendations for RhIg administration in early non-sensitized RhD negative pregnancy as follows: *'For non-sensitized Rh D-negative individuals who have experienced threatened, spontaneous, or induced abortion, ectopic pregnancy or molar pregnancy between 8 and 12 weeks gestation, we suggest not administering Rho(D) immune globulin. In individuals who are more risk averse, Rho(D) immune globulin may be considered (conditional, low).'*[1]

This recommendation was reviewed by the Transfusion Medicine, Obstetrical and Maternal Fetal Medicine physicians in Saskatchewan to determine its applicability to provincial prenatal patients. Based on review of literature and recognition of the attributes of our population, it is the safest practice to continue to offer RhIg for Rh D-negative pregnancies with sensitizing events starting at 10 weeks of gestation.

Evidence about risk of D-alloimmunization between 8 to 12 weeks GA is limited[2]. However, RhD antigen expression on fetal red cells occurs in early gestation at 6-7 weeks and as little as 0.1 ml of fetal blood can alloimmunize a pregnancy[3].

As RhD alloimmunization has profound, high-cost and longstanding implications for the subsequent pregnancies, fetus and the neonate, we recommend that Rh negative, non-sensitized pregnancies continue to receive RhIg prophylaxis for sensitizing events starting at 10 weeks and 0 days gestation. If a pregnant individual requests RhIg administration before 10 weeks gestation based on former practice, it should be considered and honored as appropriate.

Education materials from PRAMS program about Rh D alloimmunization will reflect this change in RhIg administration recommendations. Reports of prenatal antibody screens for Rh negative individuals will also specify RhIg eligibility after 10 weeks gestation.

Inquiries and Feedback

For more information about the PRAMS (Prevention of Alloimmunization in Mothers of Saskatchewan Program, please visit http://saskblood.ca/prams-program/ . To reach out to the PRAMS program for questions and concerns please email PRAMS@saskhealthauthority.ca

1. Fung-Kee-Fung, Karen, et al. "Guideline No. 448: Prevention of Rh D Alloimmunization." *Journal of Obstetrics and Gynaecology Canada* 46.4 (2024): 102449.
2. Karanth, Laxminarayan, et al. "Anti-D administration after spontaneous miscarriage for preventing Rhesus alloimmunisation." Cochrane Database of Systematic Reviews 3 (2013).
3. Zipursky, A., et al. "Transplacental isoimmunization by fetal red blood cells." (1965): 84-88.
4. Horvath, Sarah, et al. "The concentration of fetal red blood cells in first-trimester pregnant women undergoing uterine aspiration is below the calculated threshold for Rh sensitization." Contraception 102.1 (2020): 1-6.
5. Wiebe, Ellen R., et al. "Can we safely stop testing for Rh status and immunizing Rh-negative women having early abortions? A comparison of Rh alloimmunization in Canada and the Netherlands." Contraception: X 1 (2019): 100001.