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Policies Specific to Patients with Passive Anti-D (Due to Recent RH Immune Globulin Administration)

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

The purpose of this document is to provide the Blood Bank with guidance for patients with passive Anti-D due to recent Rh Immune Globulin (RhIG) administration.

II. POLICIES:

A. **Identification of Passive D**

1. Passive Anti-D may be suspected when Rh(D)-negative women of childbearing age (50-years old or less) have a reactive antibody screen, and have received RhIG within the previous 4 months. In these cases, a complete panel should be tested by the gel method (test all 11 panel cells and an autocontrol). The antibody workup may be interpreted as passive Anti-D if at least three (3) Rh(D) positive test cells on the panel are reactive, and all of the Rh(D) negative test cells are non-reactive. Note: The **screening cells may not be counted** to meet this requirement.
2. If fewer than three (3) Rh(D) positive test cells on the panel are reactive, repeat testing with ficin treated cells or extended incubation up to thirty (30) minutes may be performed to enhance the Passive Anti-D. If there are still fewer than three (3) Rh(D) positive test cells the antibody workup must not be interpreted as passive Anti-D; depending on the pattern of reactivity the workup may be interpreted as "too weak to identify" (TWTI), or Warm IgG Antibody non-specific, etc.

B. **Antibody Rule-Out for Patients with Passive Anti-D**

1. **This policy applies only for patients with passive Anti-D**.

a. If passive Anti-D is identified, then other antibody specificities may be excluded when the patient's plasma tested by the gel method is non-reactive with at least one (1) test RBC demonstrating heterozygous expression of the corresponding antigen.

b. *For example: Passive Anti-D is identified in the sample of a 26-year-old female. Anti-C (for example) may be ruled out if at least one D-C+c+ test cell is non-reactive on the panel. It is not necessary to test additional D-C+c+ test cells to rule-out Anti-C. This rule-out policy applies only for patients with passive Anti-D.*

C. **Frequency of Antibody Panels for Pregnant Patients**

1. For pregnant patients, an antibody panel is performed every 30 days. However, if the reaction strength of either screen cell on the current sample increases in strength from the previous sample, a panel should be performed regardless of whether 30 days have elapsed.

D. **Investigation of Obstetrical Patients that Display Anti-D Specificity. Determination of whether Anti-D Specificity is related to Passive Anti-D due to RhIG Administration, or Alloimmunization**

The determination of whether Anti-D Specificity detected in obstetric patient is related to RhIG administration or alloimmunization is dependent on the elapsed time between the date of a probable RhIG injection and the collection date of the sample in which the Anti-D pattern is detected. The following table and results of antibody titers which may be performed is used for this purpose.

Elapsed Time*	Appropriate Actions/ Notes
Less than 4 months	• If transfusion is necessary, use Rh negative RBCs • Patient is a RhIG candidate • Report: Passive-D Antibody (DPASS) • Add the ADPAS canned message along with the date of the previous RhIG administration to the result or add patient CMTXT message to document the date of the previous RhIG administration. • Antibody titer not required
4 to 8 months	• If transfusion is necessary, use Rh negative RBCs • Perform an antibody titer. Do not order the TITER; do not charge. Document the results as a patient comment in the Blood Bank computer. • Confirm the date of the most recent RhIG administration. Contact the patient caregiver or use Request for Information on Rh Immune Globulin Injection form for this purpose. If the information is not provided/ form is not returned within 2 weeks, interpret the investigation as

	DUNK (unknown whether anti-D specificity is due to alloimmunization or RhIG). • If the 4-8 month date is correct, may be passive Anti-D due to RhIG • Patient is a RhIG candidate. • Perform antibody exclusions as if the patient is sensitized (has alloanti-D), not as if she has passive anti-D due to RhIG. (One Homozygous or 3 Heterozygous negative cells for all antigens is required for complete exclusion. Refer to Transfusion Medicine Policies, Antibody Interpretation, Compare the policies General Antibody Exclusion Requirements and Exceptions to the General Antibody Exclusion Requirements / Passive D.) • Consult the Medical Director (MD) before interpreting results. • Report as follows, unless otherwise directed by the MD. ◦ Interpret the ABID as DUNK (unknown whether anti-D specificity is due to alloimmunization or RhIG). ◦ Use the DUNK canned messages and recommend to the patient's physician to order a new titer within 4 weeks in the report.
More than 8 months	• If transfusion is necessary, use Rh negative RBCs. • Order and perform an antibody titer in the blood bank computer. Perform antibody exclusions as if the patient is sensitized (has allo-anti-D), not as if she has passive anti-D due to RhIG. • Confirm the date of the most recent RhIG administration. • If the 8 month date is correct, alloimmunization has most likely occurred. • Consult the Medical Director (MD) before interpreting results. Report as follows, unless otherwise directed by the MD ◦ Patient is not a RhIG candidate. ◦ Report: Patient has allo-anti-D. ◦ Report: Recommend to the patient's physician in the report to order a new titer within 4 weeks.
Unable to obtain RhIG history	• If transfusion is necessary, use Rh negative RBCs. Order

	and perform an antibody titer in the blood bank computer. Perform antibody exclusions as if the patient is sensitized (has allo-anti-D), not as if she has passive anti-D due to RhIG. Compare the policies *General Antibody Exclusion Requirements* and *Exceptions to the General Antibody Exclusion Requirements / Passive D*. • Consult the Medical Director (MD) before interpreting results. Report: Recommend to the patient's physician in the report to order a new titer within 4 weeks.

*Elapsed time between RhIG injection and sample collection date

E. **Antibodies in the Patient's Soft Bank Record**

1. The passive anti-D antibody code (DPASS) shall be added to the record of patients when passive anti-D is identified. This antibody code **does not** require the use of antiglobulin / gel crossmatches.
2. The **NEXM** antibody code (not eligible for electronic crossmatch) shall be added to the record of patients when passive anti-D is identified. This antibody code **does** require the use of antiglobulin / gel crossmatches. This antibody code should be removed from the patient's record if the patient's antibody screen is later negative.
3. The Medical Director's or designee's approval is required to remove the **DUNK** antibody from a patient's record.
4. For historical patient data converted from the Sunquest system the passive D antibody was previously added as Anti D. Patients from Dearborn, Taylor, Trenton and Wayne were accompanied with ADPAS comment which signified the passive antibody. These patients should have the Anti-D removed from the record and re-entered as DPASS antibody. Historic patients with the previously identified Anti D antibody from Grosse Pointe do not have the required detail to determine whether the antibody was a result of RhIG administration. If a sample is received on a patient with the Anti-D antibody and history from Grosse Pointe, notify the supervisor or designee, who will contact Grosse Pointe to see if the antibody can be changed to DPASS.

F. **Crossmatching for Patients with Passive Anti-D Due to RhIG**

1. The general rule for patients with unexpected antibodies is that serologic crossmatches are automatically performed; the NEXM antibody is added to the computer record of patients with unexpected antibodies. Patients with passively acquired antibodies must have a minimum of 2 units packed red cells crossmatched by a gel crossmatch after the Type & Screen and antibody studies (if applicable) are completed. Additional units should be crossmatched if specifically requested by the patient caregivers or dictated by the surgical blood order schedule. Refer to Transfusion Medicine Policy, *Policies for the Provision of RBCs for Patients with Unexpected Antibodies*.

III. NOTES:

Any testing that may be indicated (for example, ficin panels, additional rule-outs, antibody titration, etc.) may be performed the next day by the day shift or referred to another laboratory for testing not performed on site if necessary. Gel crossmatched products should be provided for any patient with Anti-D specificity until the antibody identification work up is completed.

IV. REFERENCES:

AABB Technical Manual; current edition.

Approval Signatures

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Applicability

Dearborn, Farmington Hills, Grosse Pointe, Royal Oak, Taylor, Trenton, Troy, Wayne