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The Department of Vermont Health Access Clinical Criteria

Subject: Human Platelet Antigen Genotyping
Last Review: February 10, 2023*
Past Revisions: April 5, 2022, October 28, 2020

***Please note: Most current content changes will be highlighted in yellow.**

Description of Service or Procedure

This genetic test is used to screen for neonatal alloimmunization during pregnancy. It can be utilized to assess the risk of neonatal alloimmune thrombocytopenia in future pregnancies, post-transfusion purpura and thrombocytopenia. These tests are used to screen both mother and father when a neonate is suspected of having neonatal alloimmune thrombocytopenia (NAIT) or when there is reason to suspect a high risk of NAIT in a pregnancy. NAIT is a rare syndrome caused by maternal IgG antibody directed against a fetal platelet antigen inherited from the father and occurs in one in 1,000-1,500 live births (Mella & Eddleman, 2015, p. 29). It is the most common cause of severe thrombocytopenia and intracranial hemorrhage in term infants. This test should be considered for any neonate with unexplained thrombocytopenia. The results of the genotyping will help clinicians decide the best antenatal treatment and the route of delivery.

Thrombocytopenia is defined as a fetal/neonatal platelet count of less than 150,000/ul.

If a fetus or neonate is diagnosed with NAIT, the couple has an increased chance of reoccurrence in each subsequent pregnancy.

Please note a more expensive genetic test (generally one with a wider scope or more detailed testing) is not covered if a less expensive (smaller scope) test is available and has, in this clinical context, a substantially similar sensitivity.

Disclaimer

Coverage is limited to that outlined in Medicaid Rule or Health Care Administrative Rules that pertains to the member's aid category. Prior Authorization (PA) is only valid if the member is eligible for the applicable item or service on the date of service.

Medicaid Rule

Medicaid and Health Care Administrative Rules can be found at https://humanservices.vermont.gov/rules-policies/health-care-rules/health-care-administrative-rules-hcar/adopted-rules

7102.2	Prior Authorization Determination
7405	Laboratory and Radiology Services
4.101	Medical Necessity for Covered Services
4.104	Medicaid Non-Covered Services

Coverage Position

Human Platelet Antigen Genotyping may be covered for members:

- When the test is prescribed by a licensed medical provider, enrolled in the Vermont Medicaid program, operating within their scope of practice as described on the Vermont Office of Professional Regulation's website*, Statute, or rule who is knowledgeable regarding Human Platelet Antigen Genotyping, and who provides medical care to the member AND
- When the clinical criteria below are met.

* Vermont's Office of Professional Regulation's website: https://sos.vermont.gov/opr/

Coverage Criteria

Human Platelet Antigen Genotyping may be covered for:

Fetal or neonatal testing:

1. Either parent has had a prior affected pregnancy, OR
2. An unexplained intracranial hemorrhage is detected, OR
3. When thrombocytopenia is discovered

Maternal and paternal testing:

1. Should be performed when the fetus or neonate is suspected of having NAIT

Female members:

1. When planning a pregnancy, and the sister has had a previously affected pregnancy ~~or a~~ pregnancy with posttransfusion purpura
2. Who have had an adverse reaction (severe thrombocytopenia) to a blood or platelet transfusion

Considerations: Providers requesting this test should provide pre- and post-test genetic counseling for the member and family, if applicable.

Early and Periodic Screening, Diagnostic and Treatment (EPSDT): Vermont Medicaid will provide comprehensive services and furnish all Medicaid coverable, appropriate, and medically necessary services needed to correct and ameliorate health conditions for Medicaid members under age 21.

Please note, Vermont Medicaid Clinical Criteria is reviewed based on available literature, evidence- based guidelines/standards, Medicaid rule and policy, and Medicare coverage determinations that may be appropriate to incorporate when applicable.

Clinical criteria for repeat service or procedure

Human Platelet Antigen Genotyping for fetal or neonatal testing may be repeated for a subsequent pregnancy if above referenced conditions are met.

Type of service or procedure covered

Human Platelet Antigen 1,2,3,4,5,6,9,15 Genotyping

Type of service or procedure not covered (this list may not be all inclusive)

Generalized screening is not covered.

References

Centers for Medicare and Medicaid Services. (n.d). *Early and periodic screening, diagnostic, and treatment.* Medicaid.gov. https://www.medicaid.gov/medicaid/benefits/epsdt/index.html

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