Kansas City

PAYMENT INTEGRITY COMPLIANCE
Diagnostic Testing of Iron Homeostasis and Metabolism

POLICY INFORMATION			
Policy Number:	POL-PP-275 AHS – G2011 – Diagnostic Testing of Iron Homeostasis and Metabolism	Original Effective Date:	07/01/2025
Version Number:	001	Revision Date:	
Policy Status:	Active	Next Revision Date:	07/01/2026

Blue KC reserves the right to review and revise these policies when necessary. When there is an update, we will publish the most current policy to: https://providers.bluekc.com/ContactUs/PaymentPolicies.

PROVIDER/ENTITY IMPACTED					
☒ PROFESSIONAL	☒ FACILITY	☐ DME	☐ AMBULATORY SURGERY	☒ LAB	☐ OTHER

LINES OF BUSINESS IMPACTED						
☒ COMMERCIAL	☒ BLUE MEDICARE ADVANTAGE	☒ ACA QHP[1]	☒ SMALL GROUP ACA	☒ JAA[2]	☒ FEP[3]	☐ DENTAL

[1] ACA QHP: Affordable Care Act Qualified Health Plan for Individual/Family [2] JAA: Joint Administrative Account [3] FEP: Federal Employee Program

Disclaimer

Blue KC has developed Provider Payment Policies to provide guidance on payment methodologies as they pertain to submitted claims. These policies are written following industry standard recommendations from sources such as:

- Current Procedural Terminology
- Centers for Medicare and Medicaid
- American Medical Association
- National Correct Coding Initiative
- Other professional organizations and societies

Coverage of any service is determined by date of service, a member's eligibility and benefit limits for the service or services rendered, all terms of the Provider Service Agreement, and other standards of coding rules and guidelines.

Final payment is subject to the application of claims adjudication and edits common to the industry.

For confirmation of which services may be eligible for coverage and description of when medical services are considered medically necessary, not medically necessary, or investigational, please contact:

- Blue KC Provider Hotline for Commercial lines of Business 816-395-3929
- Affordable Care Act Provider Hotline 866-859-3822
- Blue Medicare Advantage Provider Hotline 866-508-7140

In the event of a conflict between any policies, the Member's coverage document will govern.

Description/Application

Iron, an essential nutrient with a variety of biological uses, is tightly regulated in vivo to maintain homeostasis. Enterocytes absorb iron as Fe2+ either in its non-heme form via DMT1 (divalent metal-ion transporter-1) or in heme form presumably through receptor-mediated endocytosis. The enterocytes then release iron through ferroportin where transferrin binds it as biologically inactive Fe3+. Saturated transferrin delivers iron to erythrocyte precursors in bone marrow where it is incorporated into hemoglobin during erythropoiesis. Transferrin may also salvage iron released by the reticuloendothelial system and macrophages (Knutson, 2017).

All cells require iron; consequently, saturated transferrin can also bind to its receptors (TfR1 or TfR2). The bound transferrin receptor (TfR) undergoes receptor-mediated endocytosis followed by export of divalent iron for cellular use (Byrne et al., 2013). Intracellularly, iron is stored within the central cavity of the protein ferritin, a large spherical protein that can store up to 4500 iron atoms per protein. Ferritin has ferroxidase activity required for iron uptake and storage. In conjunction with transferrin and TfR, ferritin is an acute phase reactant that responds to oxidative stress and inflammation (Camaschella & Weiss, 2024). Moreover, TfR1 and TfR2, upon activation by transferrin, can initiate signaling cascades required for hepcidin expression (Roetto et al., 2018). Hepcidin, a small peptide hormone, acts as a modulator of serum iron concentrations by binding to ferroportin, the only iron exporter; ultimately, this results in the degradation of ferroportin and an intracellular accumulation of iron (Pietrangelo, 2015).

Terms such as male and female are used when necessary to refer to sex assigned at birth. Please note that carbohydrate-deficient transferrin is out of scope for this policy.

Policy

Application of coverage criteria is dependent upon an individual's benefit coverage at the time of the request.

Measurement of serum ferritin levels **may be reimbursable** in any of the following situations:

- For the evaluation of an individual with abnormal hemoglobin and/or hematocrit levels.
- For the evaluation and monitoring of iron overload disorders.
- For individuals with symptoms of hemochromatosis (See Note 1).
- For individuals with first-degree relatives (See Note 2) with confirmed hereditary hemochromatosis (HH)
- For the evaluation of individuals with liver disease.
- For the evaluation of hemophagocytic lymphohistiocytosis (HLH) and Still Disease
- In males with secondary hypogonadism
- At a frequency of every 1 to 3 months:
- For the evaluation and monitoring of patients with chronic kidney disease who are receiving or being considered for receiving treatment for anemia ii. For individuals on iron therapy.

Measurement of serum transferrin saturation **may be reimbursable** in any of the following:

- For the evaluation of iron overload in individuals with symptoms of hemochromatosis (See Note 1).
- For the evaluation of iron overload in individuals with first-degree relatives (See Note 2) with confirmed hereditary hemochromatosis (HH).
- For the evaluation of iron deficiency anemia.

For all other situations not addressed above, measurement of ferritin or transferrin levels, including transferrin saturation, is not reimbursable.

Serum hepcidin testing, including immunoassays, **may not be** reimbursable

The use of GlycA testing to measure or monitor transferrin or other glycosylated proteins **may not be** reimbursable. Please note that carbohydrate-deficient transferrin is out of scope for this policy.

NOTE 1:
Symptoms of hemochromatosis, according to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) of the National Institutes of Health include the following (NIDDK, 2020):

- Joint pain
- Fatigue
- Unexplained weight loss
- Abnormal bronze or gray skin color
- Abdominal pain
- Loss of sex drive

NOTE 2:
First-degree relatives include parents, full siblings, and children of the individual.

Coding

The following is not an all-encompassing code list. The inclusion of a code does not guarantee it is a covered service or eligible for reimbursement.

Code	Description
82728	Ferritin
83540	Iron
83550	Iron binding capacity
84466	Transferrin
84999	Unlisted chemistry procedure
0024U	Glycosylated acute phase proteins (GlycA), nuclear magnetic resonance spectroscopy, quantitative
0251U	Hepcidin-25, enzyme-linked immunosorbent assay (ELISA), serum or plasma

References and Resources

Avalon Medical Policy AHS – G2011 – Diagnostic Testing of Iron Homeostasis and Metabolism

Related Documents

Policy Number	Policy Title
AHS-M2012	Genetic Testing for Hereditary Hemochromatosis

Revision History		
Version	**Date**	**Summary of Revisions**
001	06/01/2025	Initial version