Test Definition: UHSD2

Hemosiderin, Random, Urine

Overview

Useful For

Detecting hemosiderinuria, secondary to excess hemolysis, as in incompatible blood transfusions, severe acute hemolytic anemia, or hemochromatosis for external patients.

Method Name

Rous Method

NY State Available

Yes

Specimen

Specimen Type

Urine

Specimen Required

Container/Tube: Plastic urine container

Specimen Volume: 13 mL

Collection Instructions:

1. Collect a random urine specimen.
2. No preservative.

Specimen Minimum Volume

12 mL

Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	7 days	
	Ambient	2 hours	
	Frozen	7 days	

Clinical & Interpretive

Clinical Information

When the plasma hemoglobin level is 50 to 200 mg/dL after hemolysis, the capacity of haptoglobin to bind hemoglobin is exceeded, and hemoglobin readily passes through the glomeruli of the kidney. Part of the hemoglobin is absorbed by the proximal tubular cells where the hemoglobin iron is converted to hemosiderin. When these tubular cells are later shed into the urine, hemosiderinuria results. If the hemoglobin cannot be absorbed into the tubular cells, hemoglobinuria results.

Hemosiderin is found as yellow-brown granules that are free or in epithelial cells and occasionally in casts in an acidic or neutral urine.

Reference Values

Negative

Interpretation

A positive hemosiderin indicates excess red cell destruction.

Cautions

No significant cautionary statements

Clinical Reference

1. Brunzel N. Chemical examination of urine. Fundamentals of Urine and Body Fluid Analysis. 4th ed. Saunders; 2018:98-99
2. Henry JB. Clinical Diagnosis and Management by Laboratory Methods. 18th ed. WB Saunders Company; 1991:412-413
3. Cappellini MD, Lo SF, Swinkles DW. Hemoglobin, iron, bilirubin. In: Rifai N, Horvath AR, Wittwer CT, eds. Tietz Textbook of Clinical Chemistry and Molecular Diagnostics. 6th ed. Elsevier; 2018:747

Performance

Method Description

The Prussian blue reaction is used to demonstrate hemosiderin as first described by Rous in 1918.(Brunzel N. Microscopic examination of urine sediment. Fundamentals of Urine and Body Fluid Analysis. 4th ed. Saunders; 2018:392)

PDF Report

No

Day(s) Performed

Monday, Wednesday, Friday

Report Available

1 to 3 days

Specimen Retention Time

2 days

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

83070

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
UHSD2	Hemosiderin, Random, U	4644-1

Result ID	Test Result Name	Result LOINC® Value
HSDU2	Hemosiderin, Random, U	4644-1