Test Definition: CSU

Chyluria Screen, Random, Urine

Overview

Useful For

Aiding in the diagnosis of chyluria (galacturia)

Method Name

Enzymatic Colorimetric/Electrophoresis/Spectrophotometry (SP)

NY State Available

Yes

Specimen

Specimen Type

Urine

Necessary Information

Indicate patient's age and sex.

Specimen Required

Patient Preparation: Before specimen collection, the patient **should not** ingest foods or beverages rich in vitamin C or take vitamin C supplements.
Supplies: Urine Container, 60 mL (T313)
Container/Tube: Plastic, 60-mL urine bottle
Specimen Volume: 15 mL
Collection Instructions: Collect a **first-morning**, random urine collection.

Specimen Minimum Volume

15 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	Frozen (preferred)	10 days	
	Ambient	4 hours	
	Refrigerated	10 days	

Clinical & Interpretive

Clinical Information

Chyluria is a medical condition in which chyle is present in the urine. Chyle is a milky substance composed of lymphatic fluid and chylomicrons formed in the small intestine during the digestion of fatty foods. Chyluria is most prevalent in tropical areas where it is caused by parasitic (*Wuchereria bancrofti*) infections spread by mosquitoes. Parasitic chyluria is so rare as to be nonexistent in the continental United States. Nonparasitic chyluria causes include traumatic lesions, tumors, lymphangioma, pregnancy, and granulomatous infections.

Reference Values

No lipoproteins present

Interpretation

This assay provides information regarding the fat content in urine fluid. Urinary cholesterol and triglyceride values are normally less than 10 mg/dL. High triglyceride levels in urine may indicate chyluria.

Cautions

Ascorbic acid (vitamin C) interferes with the cholesterol determination and, to a lesser degree, the triglyceride concentration. Ascorbic acid falsely decreases the cholesterol and triglyceride results.

Result can be falsely decreased in patients with elevated levels of N-acetyl-p-benzoquinone imine (NAPQI)-a metabolite of acetaminophen, N-acetylcysteine, and metamizole.

Clinical Reference

1. Diamond E, Schapira HE. Chyluria-a review of the literature. Urology. 1985;26(5):427-431
2. Mendu DR, Sternlicht H, Ramanathan LV, et al. Two cases of spontaneous remission of non-parasitic chyluria. Clin Biochem. 2017;50(15):886-888. doi:10.1016/j.clinbiochem.2017.05.002

Performance

Method Description

This test involves 2 steps, centrifugation and lipoprotein electrophoresis, to detect the visual presence of chylomicrons. The specimen also is analyzed for cholesterol and triglycerides using an enzymatic colorimetric method. The results of the cholesterol, triglycerides, and lipoprotein electrophoresis are used together to determine whether the sample is chyluria.(Unpublished Mayo information)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

2 to 5 days

Specimen Retention Time

6 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 modified from the manufacturer's instructions. Its performance characteristics were determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

82664-Electrophoretic technique, not elsewhere specified (Chylomicrons and lipoproteins)
84311-Spectrophotometry, analyte not specified (Cholesterol)
84478-Triglycerides

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
CSU	Chyluria Screen, Random, U	95808-2

Result ID	Test Result Name	Result LOINC® Value
CHOLU	Cholesterol, Random, U	14444-4
TRIGU	Triglycerides, Random, U	14450-1
CMTCS	Interpretive Comment	95807-4