Test Definition: RCHLU

Chloride, Random, U

Overview

Useful For

An indicator of fluid balance and acid-base homeostasis

Method Name

Potentiometric,IndirectIon-SelectiveElectrode(ISE)

NY State Available

Yes

Specimen

Specimen Type

Urine

Specimen Required

Supplies: Aliquot Tube, 5 mL (T465)

Container/Tube: Plastic, 5-mL tube (T465)

Specimen Volume: 5 mL

Collection Instructions:

1. Collect a random urine specimen.

2. No preservative.

Forms

If not ordering electronically, complete, print, and send a Renal Diagnostics Test Request (T830) with the specimen.

Specimen Minimum Volume

1 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)	14 days	
	Frozen	14 days	
	Ambient	7 days	

Clinical and Interpretive

Clinical Information

Chloride is the major extracellular anion. Its precise function in the body is not well understood; however, it is involved in maintaining osmotic pressure, proper body hydration, and electric neutrality. In the absence of acid-base disturbances, chloride concentrations in plasma will generally follow those of sodium (Na+).

Since urine is the primary mode of elimination of ingested chloride, urinary chloride excretion during steady state conditions will reflect ingested chloride, which predominantly is in the form of sodium chloride (NaCl). However, under certain clinical conditions, the renal excretion of chloride may not reflect intake. For instance, during states of extracellular volume depletion, urine chloride (and sodium) excretion is reduced.

Reference Values

Interpret with other clinical data.

Interpretation

Urine sodium and chloride excretion are similar and, under steady state conditions, both the urinary sodium and chloride excretion reflect the intake of sodium chloride (NaCl). During states of extracellular volume depletion, low values indicate appropriate renal reabsorption of these ions, whereas elevated values indicate inappropriate excretion (renal wasting). Urinary sodium and chloride excretion may be dissociated during metabolic alkalosis with volume depletion where urine sodium excretion may be high (due to renal excretion of NaHCO3) while urine chloride excretion remains appropriately low.

Cautions

High urine values of other halide ions (eg, bromide, fluoride, iodide) may lead to falsely high readings on the chloride ion-selective electrode (ISE).

Clinical Reference

1. Tietz Textbook of Clinical Chemistry. Third edition. Edited by CA Burtis, ER Ashwood. Philadelphia, WB Saunders Co, 1999

2. Toffaletti J: Electrolytes. In Professional Practice in Clinical Chemistry: A Review. Edited by DR Dufour, N Rifai. Washington, AACC Press, 1993

3. Kamel KS, Ethier JH, Richardson RM, et al: Urine electrolytes and osmolality: when and how to use them. Am J Nephrol 1990;10:89-102

Performance

Method Description

Ion-selective electrode using indirect potentiometry.(Package insert: Roche Diagnostics; Indianapolis, IN 46256, 8/99)

PDF Report

No

Day(s) and Time(s) Test Performed

Monday through Sunday; Continuously

Analytic Time

Same day/1 day

Maximum Laboratory Time

2 days

Specimen Retention Time

7 days

Performing Laboratory Location

Rochester

Fees and 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 Regional Manager. For assistance, contact Customer Service.

Test Classification

This test has been cleared or approved by the U.S. 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

82436

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
RCHLU	Chloride, Random, U	2078-4

Result ID	Test Result Name	Result LOINC Value
RCHLU	Chloride, Random, U	2078-4