
Lab Dept: Urine/Stool

Test Name: **CALCIUM/CREATININE RATIO, TIMED URINE**

General Information

Lab Order Codes: UCCR

Synonyms: Ca/Creat ratio, Timed Urine

CPT Codes: 82340 – Calcium; urine quantitative, timed

82570 – Creatinine, other source

81050 – Volume measurement for timed collection, each

Test Includes: Urine calcium in mg/dL and mg/collection, Urine creatinine in mg/dL, Calcium/creatinine ratio, Collection volume and Collection period

Logistics

Test Indications: The amount of calcium excreted into the urine reflects on renal function, intestinal absorption, skeletal resorption, renal filtration and dietary intake.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 day

Special Instructions: Submit an entire 24-hour urine collection. Refrigerate specimen during and after collection.

Note: Starting and ending times of collection are required for a timed urine collection and must be documented electronically or on the proper request form.

Specimen

Specimen Type: Urine, timed collection

Container: Plastic leakproof container (No preservative). Urine GUARD® collection container is preferred for a 24 hour urine specimen.

Draw Volume:	Entire 24-hour urine collection
Processed Volume:	Minimum: 1.0 mL urine
Collection:	For timed urine collections, empty the bladder, discard the voided sample, and note the start time. Collect all urine voided for the specified time period. At the end of the period, note the finishing time, add the last voided sample to the container by emptying the bladder. Bring the refrigerated container to the lab. Make sure all specimens submitted to the laboratory are properly labeled with the patient's name, medical record number and date of birth.
Special Processing:	Lab Staff: Measure total volume of specimen submitted and record by ordering PV (Period and Volume) in the LIS. Pour off an aliquot and centrifuge specimen before analysis.
Patient Preparation:	None
Sample Rejection:	Unlabeled or mislabeled specimens

Interpretive

Reference Range:	Calcium 24 hr:	25 – 150 mg/collection
	Diet Dependant:	
	Low Ca ⁺⁺ Intake:	<5mg/collection
	Average Ca ⁺⁺ Intake:	50 – 150 mg/collection
	High Ca ⁺⁺ Intake:	100 – 300 mg/collection
	Ca/Creat Ratio:	
	<16 yr:	<0.20
	Adult	<0.11
	Note: The reference value is for a 24 hour collection. Specimens collected for other than a 24 hour time period have no reference values established.	

Critical Values:	N/A
Limitations:	N/A
Methodology:	Arsenazo III; Alkaline Picrate/Kinetic

References:

Tietz (1999) Clinical Guide to Laboratory Tests, 3rd ed, Philadelphia, WB Saunders Company, pp 1404-1405

Alinity Calcium Pkg insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, February 2018

CALIPER pediatric reference range database (2019) Retrieved October 3, 2019. <https://caliper.research.sickkids.ca/#/>

Biorad Multiquel Assayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618

Biorad Liquichek Unassayed Chemistry Control Product Insert, Bio-Rad Laboratories, Irvine, CA 92618

Biorad Liquichek Unassayed Chemistry Control (Human) product insert, Irvine, CA 92618

Clinical Significance, Dade Behring Inc., Glasgow Business Community, Mailbox 531, P.O. Box 6101, Newark, Delaware 19714

Pediatric Reference Intervals (2007) Sixth Edition, AACC Press, Washington DC

Alinity c Clinical Chemistry Calibrator Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, December 2018

Updates:

9/27/2017: Updated lab processing information.

11/9/2020: Retired Method VISTA, updated for method Alinity