Lab Dept: Urine/Stool

Test Name: URIC ACID, RANDOM URINE

General Information

Lab Order Codes:	UAUR
Synonyms:	N/A
CPT Codes:	84560 – Uric acid; other source 82570 – Creatinine; urine
Test Includes:	Random urine uric acid concentration in mg/dL, urine creatinine in mg/dL and uric acid/creatinine ratio in mg/mg.

Logistics

Test Indications:	Differentiation of acute uric acid nephropathy from other causes of acute renal failure. Patients who cannot collect a 24 hour specimen, typically small children, a uric acid to creatinine ratio can be used to approximate 24 hour excretion.
Lab Testing Sections:	Chemistry - Sendouts
Referred to:	Mayo Clinic Laboratories (Mayo test: RURC1)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 - 3 days
Special Instructions:	N/A

Specimen

Specimen Type:	Urine, random collection (no preservatives)
Container:	Plastic leakproof container (No preservatives)
Draw Volume:	1 - 4 mL from a random urine collection

Processed Volume: Minimum: 1 mL urine

Collection: A random urine sample may be obtained by voiding into a urine cup and is often performed at the laboratory. 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: N/A

Patient Preparation: Patient should not have a contrast dye procedure within a period of time of this collection. See Limitations.

Sample Rejection: Mislabeled or unlabeled specimens

Interpretive

Reference Range:

No reference ranges established for random urine samples

Pediatric Reference Ranges of Uric Acid/Creatinine (mg/mg)

Age (year)	**5th Percentile**	**95th Percentile**
0 – 0.5	>1.189	<2.378
0.5 – 1	>1.040	<2.229
1 – 2	>0.743	<2.080
2 – 3	>0.698	<1.932
3 – 5	>0.594	<1.635
5 – 7	>0.446	<1.189
7 – 10	>0.386	<0.832
10 - 14	>0.297	<0.654
14 – 17	>0.297	<0.594

Note: When acute renal failure secondary to uric acid is suspected, a uric acid to creatinine ratio (mg/mg) >1.0 is consistent with acute uric acid nephropathy, whereas values <0.75 are consistent with other causes of acute renal failure.

Critical Values: N/A

Limitations:

X-ray dyes and contrast media will affect test results.

- If a kidney X-ray with dye or computerized tomography (CT) scan with contrast has been performed, patient should wait a minimum of 1 day before starting collection.
- If a cholangiography (bile duct x-ray) has been performed, patient should wait 7 days before starting collection.
- Urine must be collected before tablets have been taken for gallbladder x-ray, otherwise patient should wait 7 days.

High levels of bilirubin and ascorbic acid may interfere with measurement.

Methodology:

Uric Acid – Uricase
Creatinine – Enzymatic Colorimetric Assay

References:

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