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**Lab Dept:** Chemistry

**Test Name:** URIC ACID

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***General Information***

**Lab Order Codes:** URIC

**Synonyms:** Uric Acid

**CPT Codes:** 84550 – Uric acid; blood

**Test Includes:** Uric acid concentration reported in mg/dL.

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***Logistics***

**Test Indications:** Uric acid is the end product of purine metabolism, either synthesized or dietary, and is normally cleared by the kidney. An increased level in joints is known as gout. Uric acid may also be increased with acidosis, uremia, and in conditions associated with tissue destruction, such as leukemia.

**Lab Testing Sections:** Chemistry

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 hours

**Special Instructions:** None

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***Specimen***

**Specimen Type:** Blood

**Container:** Green top (Li Heparin) tube, **preferred**  
Alternate tube: SST-Serum Separator (Red, marble or gold top tube)

**Draw Volume:** 0.6 mL blood

**Processed Volume:** 0.2 mL plasma/serum

**Collection:** Routine blood collection. Mix tubes containing anticoagulant by gentle inversion.  
**Note:** Venipuncture should occur prior to administration of N-Acetylcysteine (NAC) or Metamizole due to the potential for falsely depressed results.

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Store at refrigerated temperatures.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimen, specimens other than heparinized plasma or serum

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***Interpretive***

<b>Reference Range:</b>	<b>Age:</b>	<b>Reference Range (mg/dL):</b>
<b>Male &amp; Female</b>		
	0 - <15 days:	2.8 – 12.7
	15 days - <1 year:	1.6 – 6.3
	1 - <12 years:	1.8 – 4.9
<b>Female</b>		
	12 - <19 years:	2.6 – 5.9
	Adult:	2.6 – 6.0
<b>Male</b>		
	12 - <19 years:	2.6 – 7.6
	Adult:	3.5 – 7.2

**Critical Values:** >10 mg/dL

**Limitations:** N-Acetyl-4-benzoquinone Imine (NAPQI), a metabolite of Acetaminophen at very high levels may lead to falsely low results. N-Acetyl-L-Cysteine at therapeutically achieved concentrations may lead to falsely low results.

**Methodology:** Uricase

**References:**

Abbott Alinity c Uric Acid Reagent Kit Instructions for Use, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. December 2017

Abbott Alinity c Multiconstituent Calibrator Package Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. December 2017

Bio-Rad Liquichek Unassayed Multiqual 1,2,3, Package Insert, Bio-Rad Laboratories, Irvine, CA, USA

CALIPER Reference Interval Studies, access October 27, 2020, <https://caliper.research.sickkids.ca/#/>

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition

Tietz Textbook of Clinical Chemistry (1999) 3rd Edition, W.B. Saunders Company, pp 50-51, 1245-1250

Bio-Rad Liquichek Unassayed Chemistry Control (Human) product insert, Irvine, CA

Bio-Rad Liquichek Urine Chemistry Control Product insert, Bio-Rad Laboratories, Irvine, CA 92618

Medical Device Correction Notice DC-16-02 (3/17/2016) Siemens Healthcare Diagnostics

**Updates:**

2/9/2016: Update alt tube type

3/29/2016: Update collection/tubes/references

11/25/2020: Updated for method Abbott Alinity, removed method Siemes Vista