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**Reporting Title:** Supersaturation, Random, U**Performing Location:** Rochester**Ordering Guidance:**

A timed 24-hour urine collection is the preferred specimen for measuring and interpreting this profile to determine kidney stone risk factors (SUP24 / Supersaturation Profile, 24 Hour, Urine). Random urine collections with individual analytes normalized to urinary creatinine may be of some clinical use in patients who cannot collect a 24-hour specimen, typically small children. Therefore, this test is offered on random collections for children less than 16 years old.

X-ray dyes and contrast media will affect uric acid 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 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 before starting collection.

**Necessary Information:**

Patient's age is required.

**Specimen Requirements:**

Supplies:

-Urine Tubes, 10 mL (T068)

-Sarstedt Aliquot Tube, 5 mL (T914)

Collection Container/Tube: 90 mL urine container

Submission Container/Tube: 2 x 10 mL plastic urine tubes and 5 x 5 mL plastic urine tubes

Specimen Volume: 40 mL

Collection Instructions:

1. Collect a random urine specimen, mix collection container thoroughly and divide the urine into 7 plastic tubes (2 x 10 mL and 5 x 5 mL).

2. Refrigerate specimen after collection. Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated. Specimens with pH above 8 indicate bacterial contamination, and testing will be canceled. Do not attempt to adjust pH as it will adversely affect results.

**Specimen Minimum Volume:**

30 mL

**Forms:**

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

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	14 days	
	Frozen	14 days	
	Ambient	72 hours	

## Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
616399	Calcium Oxalate Crystal	Numeric	DG	In Process
616400	Brushite Crystal	Numeric	DG	In Process
616401	Hydroxyapatite Crystal	Numeric	DG	In Process
616402	Uric Acid Crystal	Numeric	DG	In Process
31246	Interpretation	Alphanumeric		69051-1
RANAC	Sodium, Random, U <b>Also used by tests: RANAU</b>	Numeric	mmol/L	2955-3
RAKUC	Potassium, Random, U <b>Also used by tests: RAKUR</b>	Numeric	mmol/L	2828-2
RACAC	Calcium, Random, U <b>Also used by tests: RACAL</b>	Numeric	mg/dL	17862-4
CALCR	Calcium/Creatinine Ratio, Random, U <b>Also used by tests: RACAL</b>	Numeric	mg/mg	9321-1
RAMGC	Magnesium, Random, U <b>Also used by tests: RAMAG</b>	Numeric	mg/dL	19124-7
MAGCR	Magnesium/Creat Ratio, Random, U <b>Also used by tests: RAMAG</b>	Numeric	mg/mg	13474-2
RACLC	Chloride, Random, U <b>Also used by tests: RACLU</b>	Numeric	mmol/L	2078-4
POUCO	Phosphorus, Random, U <b>Also used by tests: RAPOU</b>	Numeric	mg/dL	2778-9
PHOCR	Phosphorus/Creat Ratio, Random, U <b>Also used by tests: RAPOU</b>	Numeric	mg/mg	11141-9

Result ID	Reporting Name	Type	Unit	LOINC®
RASUC	Sulfate, Random, U	Numeric	mg/dL	2975-1
CITCO	Citrate Excretion, Random, U <b>Also used by tests: RACIT</b>	Numeric	mg/dL	2128-7
CITCR	Citrate/Creatinine Ratio, Random, U <b>Also used by tests: RACIT</b>	Numeric	mg/mg	13722-4
OXMCO	Oxalate, Random, U (mmol/L) <b>Also used by tests: RAOXU</b>	Numeric	mmol/L	15086-2
OXGCO	Oxalate, Random, U (mg/L) <b>Also used by tests: RAOXU</b>	Numeric	mg/L	2700-3
OXUCR	Oxalate/Creatinine Ratio, Random, U <b>Also used by tests: RAOXU</b>	Numeric	mg/mg	13483-3
RAPHU	pH, Random, U	Numeric		2756-5
RAUAC	Uric Acid, Random, U <b>Also used by tests: RAURA</b>	Numeric	mg/dL	3086-6
UACCR	Uric Acid/Creat Ratio, Random, U <b>Also used by tests: RAURA</b>	Numeric	mg/mg	3089-0
RACTU	Creatinine, Random, U <b>Also used by tests: RACTU</b>	Numeric	mg/dL	2161-8
RAOSU	Osmolality, Random, U	Numeric	mOsm/kg	2695-5
RAAMM	Ammonium, Random, U <b>Also used by tests: RAAMM</b>	Numeric	mmol/L	1842-4

LOINC and CPT codes are provided by the performing laboratory.

## Supplemental Report:

Supplemental

## Components:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
SRINT	Supersaturation, Random, U 1			Yes	No

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
RANAU	Sodium, Random, U			Yes	Yes (order RNAUR)
RAKUR	Potassium, Random, U			Yes	Yes (order RKUR)
RACAL	Calcium, Random, U			Yes	Yes (order CACR3)
RAMAG	Magnesium, Random, U			Yes	Yes (order MAGRU)
RACLU	Chloride, Random, U			Yes	Yes (order RCHLU)
RAPOU	Phosphorus, Random, U			Yes	Yes (order RPHOC)
RASUL	Sulfate, Random, U			Yes	No
RACIT	Citrate Excretion, Random, U			Yes	Yes (order CITRA)
RAOXU	Oxalate, Random, U			Yes	Yes (order ROXUR)
RAPHU	pH, Random, U			Yes	No
RAURA	Uric Acid, Random, U			Yes	Yes (order RURC1)
RACTU	Creatinine, Random, U			Yes	Yes (order RCTUR)
RAOSM	Osmolality, Random, U			Yes	No
RAAMM	Ammonium, Random, U			Yes	Yes (order RAMBO)

## CPT Code Information:

82310-Calcium  
 82436-Chloride  
 82507-Citrate excretion  
 82570-Creatinine  
 83735-Magnesium  
 83935-Osmolality  
 83945-Oxalate  
 83986-pH  
 84105-Phosphorus  
 84133-Potassium  
 84300-Sodium  
 84392-Sulfate  
 84560-Uric acid

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82140-Ammonium

**Reference Values:**

The following analytes do not have any established reference values:  
Sodium, potassium, chloride, phosphorus, citrate, sulfate, and oxalate  
pH: 4.5-8.0

**CREATININE**

> or =18 years old: 16-326 mg/dL

Reference values have not been established for patients who are younger than 18 years.

**OSMOLALITY**

0-11 months: 50-750 mOsm/kg

> or =12 months: 150-1,150 mOsm/kg

**AMMONIUM**

18-77 years: 3-65 mmol/L

No reference values established for patients who are younger than 18 years or older than 77 years.

**CALCIUM**

1 month-<12 months: 0.03-0.81 mg/mg creat

12 months-<24 months: 0.03-0.56 mg/mg creat

24 months-<3 years: 0.02-0.50 mg/mg creat

3 years-<5 years: 0.02-0.41 mg/mg creat

5 years-<7 years: 0.01-0.30 mg/mg creat

7 years-<10 years: 0.01-0.25 mg/mg creat

10 years-<18 years: 0.01-0.24 mg/mg creat

18 years-83 years: 0.05-0.27 mg/mg creat

Reference values have not been established for patients who are younger than 1 month or older than 83 years.

**MAGNESIUM**

Magnesium/Creatinine Ratio:

1 month-<12 months: 0.10-0.48 mg/mg creat

12 months-<24 months: 0.09-0.37 mg/mg creat

24 months-<3 years: 0.07-0.34 mg/mg creat

3 years-<5 years: 0.07-0.29 mg/mg creat

5 years-<7 years: 0.06-0.21 mg/mg creat

7 years-<10 years: 0.05-0.18 mg/mg creat

10 years-<14 years: 0.05-0.15 mg/mg creat

14 years-<18 years: 0.05-0.13 mg/mg creat

18 years-83 years: 0.04-0.12 mg/mg creat

Reference values have not been established for patients who are younger than 1 month or older than 83 years.