

**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.

**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®  |
|-----------|-----------------------------|---------|--------|---------|
| OXMCO     | Oxalate, Random, U (mmol/L) | Numeric | mmol/L | 15086-2 |

|        |                                     |              |         |            |
|--------|-------------------------------------|--------------|---------|------------|
| OXGCO  | Oxalate, Random, U (mg/L)           | Numeric      | mg/L    | 2700-3     |
| OXUCR  | Oxalate/Creatinine Ratio, Random, U | Numeric      | mg/mg   | 13483-3    |
| 31246  | Interpretation                      | Alphanumeric |         | 69051-1    |
| 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 |
| RAUAC  | Uric Acid, Random, U                | Numeric      | mg/dL   | 3086-6     |
| UACCR  | Uric Acid/Creat Ratio, Random, U    | Numeric      | mg/mg   | 3089-0     |
| RASUC  | Sulfate, Random, U                  | Numeric      | mg/dL   | 2975-1     |
| POUCO  | Phosphorus, Random, U               | Numeric      | mg/dL   | 2778-9     |
| PHOCR  | Phosphorus/Creat Ratio, Random, U   | Numeric      | mg/mg   | 11141-9    |
| RAPHU  | pH, Random, U                       | Numeric      |         | 2756-5     |
| RAOSU  | Osmolality, Random, U               | Numeric      | mOsm/kg | 2695-5     |
| RANAC  | Sodium, Random, U                   | Numeric      | mmol/L  | 2955-3     |
| RAMGC  | Magnesium, Random, U                | Numeric      | mg/dL   | 19124-7    |
| MAGCR  | Magnesium/Creat Ratio, Random, U    | Numeric      | mg/mg   | 13474-2    |
| RACTU  | Creatinine, Random, U               | Numeric      | mg/dL   | 2161-8     |
| RAKUC  | Potassium, Random, U                | Numeric      | mmol/L  | 2828-2     |
| RACLC  | Chloride, Random, U                 | Numeric      | mmol/L  | 2078-4     |
| CITCO  | Citrate Excretion, Random, U        | Numeric      | mg/dL   | 2128-7     |
| CITCR  | Citrate/Creatinine Ratio, Random, U | Numeric      | mg/mg   | 13722-4    |
| RACAC  | Calcium, Random, U                  | Numeric      | mg/dL   | 17862-4    |
| CALCR  | Calcium/Creatinine Ratio, Random, U | Numeric      | mg/mg   | 9321-1     |
| RAAMM  | Ammonium, Random, U                 | 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 | Available Separately |
|---------|------------------------------|-----------|----------|------------------|----------------------|
| SRINT   | Supersaturation, Random, U 1 |           |          | Yes              | No                   |
| RANAU   | Sodium, Random, U            | 1         | 84300    | Yes              | Yes, (order RNAUR)   |
| RAKUR   | Potassium, Random, U         | 1         | 84133    | Yes              | Yes, (order RKUR)    |
| RACAL   | Calcium, Random, U           | 1         | 82310    | Yes              | Yes, (order CACR3)   |
| RAMAG   | Magnesium, Random, U         | 1         | 83735    | Yes              | Yes, (order MAGRU)   |
| RACLU   | Chloride, Random, U          | 1         | 82436    | Yes              | Yes, (order RCHLU)   |
| RAPOU   | Phosphorus, Random, U        | 1         | 84105    | Yes              | Yes, (order RPHOC)   |
| RASUL   | Sulfate, Random, U           | 1         | 84392    | Yes              | No                   |
| RACIT   | Citrate Excretion, Random, U | 1         | 82507    | Yes              | Yes, (order CITRA)   |

|       |                       |   |       |     |                    |
|-------|-----------------------|---|-------|-----|--------------------|
| RAOXU | Oxalate, Random, U    | 1 | 83945 | Yes | Yes, (order ROXUR) |
| RAPHU | pH, Random, U         | 1 | 83986 | Yes | No                 |
| RAURA | Uric Acid, Random, U  | 1 | 84560 | Yes | Yes, (order RURC1) |
| RACTU | Creatinine, Random, U | 1 | 82570 | Yes | Yes, (order RCTUR) |
| RAOSM | Osmolality, Random, U | 1 | 83935 | Yes | No                 |
| RAAMM | Ammonium, Random, U   | 1 | 82140 | 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
- 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.