Test Definition: SSAT

Supersaturation Profile, Urine

Reporting Title: Supersaturation, U
Performing Location: Rochester

Specimen Requirements:

Container/Tube: Plastic, 60-mL urine bottle
Specimen Volume: 35 mL
Collection Instructions:
1. Collect urine for 24 hours.
2. Add 30 mL of toluene as preservative at start of collection, or refrigerate specimen during and after collection.
3. Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated. Specimens with pH >8 indicate bacterial contamination, and testing will be cancelled. Do not attempt to adjust pH as it will adversely affect results.
Additional Information:
1. 24-Hour volume is required.
2. See Urine Preservatives in Special Instructions for multiple collections.

Urine Preservative Collection Options
Ambient No
Refrigerated Yes
Frozen Yes
6N HCl No
50% Acetic Acid No
Na2CO3 No
Toluene Preferred
6N HNO3 No
Boric Acid No
Thymol No
Forms: If not ordering electronically, submit a General Request Form (Supply T239) with the specimen.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Type	Reportable
SUPST	CLDUR	Collection Duration	Plain Text	Yes
SUPST	VL38	Volume	Plain Text	Yes

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
21041	Calcium Oxalate Crystal	Numeric	DG	In Process
21042	Brushite Crystal	Numeric	DG	In Process
21043	Hydroxyapatite Crystal	Numeric	DG	In Process
21044	Uric Acid Crystal	Numeric	DG	In Process
21045	Sodium Urate Crystal	Numeric	DG	In Process
21060	Interpretation	Alphanumeric		59462-2
CLDUR	Collection Duration	Alphanumeric		13362-9
VL38	Volume	Alphanumeric		3167-4
NA24	Sodium, U	Numeric	mmol/24 h	2956-1
K24U	Potassium, U	Numeric	mmol/24 h	2829-0
26350	Calcium, U	Numeric	mg/spec	6874-2
26351	Magnesium, U	Numeric	mg/spec	24447-5
CL24	Chloride, U	Numeric	mmol/24 h	2079-2
PHS_U	Phosphorus, U	Numeric	mg/spec	2779-7
SULF_	Sulfate Urine	Numeric	mmol/spec	26889-6
CITRE	Citrate Excretion, U	Numeric	mg/spec	14650-6
OXLT	Oxalate, U (mmol/spec)	Numeric	mmol/spec	14862-7
OXU2	Oxalate, mg/spec	Numeric	mg/spec	2701-1
UPHU	pH, U	Numeric		In Process
URACI	Uric Acid, U	Numeric	mg/spec	3087-4
CRETU	Creatinine, U	Numeric	mg/spec	2162-6
UOSMP	Osmolality	Numeric	mOsm/kg	2695-5

Components:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
SUPST	Supersaturation, U			Yes	No
NAUP	Sodium, U	1	84300	Yes	Yes (order NAU)

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
KUP	Potassium, U	1	84133	Yes	Yes (order KUR)
CALP	Calcium, U	1	82340	Yes	Yes (order CAU)
MGUP	Magnesium, U	1	83735	Yes	Yes (order MGU)
CLUP	Chloride, U	1	82436	Yes	Yes (order CLU)
POUP	Phosphorus, U	1	84105	Yes	Yes (order POU)
SULFP	Sulfate, U	1	84392	Yes	Yes (order SULFU)
CITP	Citrate Excretion, U	1	82507	Yes	Yes (order CITR)
OXUP	Oxalate, U	1	83945	Yes	Yes (order OXU)
UPHP	pH, U	1	83986	Yes	Yes (order PHU_)
URCP	Uric Acid, U	1	84560	Yes	Yes (order URCU)
CTUP	Creatinine, U	1	82570	Yes	Yes (order CTU)
UOSMP	Osmolality	1	83935	Yes	Yes (order UOSMU)

Reference Values:

SUPERSATURATION REFERENCE MEANS (DG)
Calcium oxalate: 1.77
Brushite: 0.21
Hydroxyapatite: 3.96
Uric acid: 1.04
Sodium urate: 1.76

INDIVIDUAL URINE ANALYTES
OSMOLALITY
0-11 months: 50-750 mOsm/kg
> or =12 months: 150-1,150 mOsm/kg

ALL REFERENCE RANGES BELOW ARE BASED ON 24-HOUR COLLECTIONS.

SODIUM

41-227 mmol/24 hours

POTASSIUM
17-77 mmol/24 hours

CALCIUM
Males: 25-300 mg/specimen*
Females: 20-275 mg/specimen*
Hypercalciuria: >350 mg/specimen
*Values are for persons with average calcium intake (ie, 600-800 mg/day).

MAGNESIUM
0-15 years: not established
> or =16 years: 75-150 mg/specimen

CHLORIDE
40-224 mmol/24 hours

PHOSPHORUS
<1,100 mg/specimen

SULFATE
7-47 mmol/specimen

CITRATE EXCRETION
0-19 years: not established
20 years: 150-1,191 mg/specimen
21 years: 157-1,191 mg/specimen
22 years: 164-1,191 mg/specimen
23 years: 171-1,191 mg/specimen
24 years: 178-1,191 mg/specimen
25 years: 186-1,191 mg/specimen
26 years: 193-1,191 mg/specimen
27 years: 200-1,191 mg/specimen
28 years: 207-1,191 mg/specimen
29 years: 214-1,191 mg/specimen
30 years: 221-1,191 mg/specimen
31 years: 228-1,191 mg/specimen
32 years: 235-1,191 mg/specimen
33 years: 242-1,191 mg/specimen
34 years: 250-1,191 mg/specimen
35 years: 257-1,191 mg/specimen
36 years: 264-1,191 mg/specimen
37 years: 271-1,191 mg/specimen
38 years: 278-1,191 mg/specimen
39 years: 285-1,191 mg/specimen
40 years: 292-1,191 mg/specimen
41 years: 299-1,191 mg/specimen
42 years: 306-1,191 mg/specimen
43 years: 314-1,191 mg/specimen
44 years: 321-1,191 mg/specimen

45 years: 328-1,191 mg/specimen
46 years: 335-1,191 mg/specimen
47 years: 342-1,191 mg/specimen
48 years: 349-1,191 mg/specimen
49 years: 356-1,191 mg/specimen
50 years: 363-1,191 mg/specimen
51 years: 370-1,191 mg/specimen
52 years: 378-1,191 mg/specimen
53 years: 385-1,191 mg/specimen
54 years: 392-1,191 mg/specimen
55 years: 399-1,191 mg/specimen
56 years: 406-1,191 mg/specimen
57 years: 413-1,191 mg/specimen
58 years: 420-1,191 mg/specimen
59 years: 427-1,191 mg/specimen
60 years: 434-1,191 mg/specimen
>60 years: not established

OXALATE
0.11-0.46 mmol/specimen

URIC ACID
Diet-dependent: <750 mg/specimen

CREATININE
15-25 mg/kg of body weight/24 hours
Reported in unit of mg/specimen