

SPECIMEN REQUIREMENT CHANGE

NOTIFICATION DATE: September 13, 2013

EFFECTIVE DATE: October 11, 2013

OXALATE, URINE Test ID: OXU

EXPLANATION: Effective October 11, 2013, 6N HCl will no longer be an acceptable preservative for urine oxalate testing. In addition, 6N HNO₃, acetic acid, and boric acid will no longer be acceptable. Instead, the preferred preservative for urine oxalate will switch to toluene. Since toluene is not supplied by MML, clients who do not have access to toluene may omit preservative and ship urine oxalate refrigerated or frozen.

Use of hydrochloric acid (HCl) has been the preferred preservative for urine oxalate testing at MML for many years. When properly performed, acidification does effectively preserve oxalate in a urine matrix. However, recent studies in the Mayo Renal Laboratory found that when too much acid is used and the urine is overly acidified to a pH <1, urine oxalate measurements may not be reliable, even after the pH is subsequently neutralized upon receipt in the Lab. This has led to the need to cancel urine oxalate tests when the initial urine pH is < 1. Often urine oxalate is ordered as part of a panel to evaluate kidney stone risk (Supersaturation profile SSAT/#82029). Since toluene is the preferred preservative for the Supersaturation panel and acid is not acceptable for several tests that are included (including urine citrate and uric acid), toluene will be the preferred preservative for all urine oxalate testing beginning on October 11, 2013. Specimens received with acidic preservative (HCl, HNO₃, acetic, or boric) will be rejected.

CURRENT SPECIMEN REQUIREMENT INFORMATION:

Container/Tube: Plastic, 10-mL urine tube (Supply T068) or a clean, plastic aliquot container with no metal cap or glued insert

Specimen Volume: 5 mL

Collection Instructions:

1. Collect urine for 24 hours.
2. Add 30 mL of 6N HCl at end of 24-hour urine collection (within 4 hours of completion of collection).
3. Adjust pH to 2.5 to 3 with 6N HCl and mix well before aliquot is taken.

Additional Information:

1. 24-Hour volume is required.
2. Avoid taking large doses (>2 g orally/24 hours) of vitamin C during specimen collection.
3. See Urine Preservatives in Special Instructions for multiple collections.

Urine Preservative Collection Options

Ambient	Yes
Refrigerated	Yes
Frozen	Yes
6N HCl	Preferred
50% Acetic Acid	Yes
Na ₂ CO ₃	No
Toluene	Yes
6N HNO ₃	Yes
Boric Acid	Yes
Thymol	Yes

NEW SPECIMEN REQUIREMENT INFORMATION:

Container/Tube: Plastic, 10-mL urine tube (Supply T068) or a clean, plastic aliquot container with no metal cap or glued insert

Specimen Volume: 5 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. Avoid taking large doses (>2 g orally/24 hours) of vitamin C during specimen collection.
3. 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
Na ₂ CO ₃	No
Toluene	Preferred
6N HNO ₃	No
Boric Acid	No
Thymol	Yes

QUESTIONS: Contact your Mayo Medical Laboratories' Regional Manager or
Richard Einerson, MML Laboratory Technologist Resource Coordinator
Telephone: 800-533-1710