



Department of Pathology and Laboratory Medicine

24-HOUR URINE COLLECTION PROTOCOL

All testing for 24 hour urine samples requires that the specimen be collected in the appropriate container. Depending on the test to be performed, the collection jug should have either no additive or be acid washed (trace element jugs). Note: If two 24 hour urine tests requiring differing additives are collected simultaneously, then a “split jug” kit must be used.

Sample Collection

1. To begin the collection, have the patient totally empty his/her bladder into the toilet. For a catheter bag collection, be sure to empty the bag before beginning the collection. Note the start time on the requisition.
2. Hydrate the patient with at least 800 mL of water. Note that special orders may have been given by the attending physician of a patient with documented renal disease. These special orders may override recommendations made here with respect to water intake or withholding of medication. Withhold tea and coffee the day of the test. Some tests are susceptible to drug interference, thus depending on the test being collected, some medications should be halted prior to and during the 24 hour collection. Please refer to each individual test page for specific drug interactions. Prescription medications should not be halted without physician approval.
3. During the following 24 hours, every drop of urine must be placed into the 24 hour urine collection container as soon as possible. For a catheter bag collection, empty the bag into the 24 hour urine collection container every 4 hours.
4. 5 minutes before the 24 hour collection period is complete, the bladder or catheter collection bag is emptied into the collection container.
5. **IMPORTANT!** If an error in timing occurs, or if some urine is lost, be sure to note the timing information accurately on the requisition. The physician and the clinical pathologist can then determine whether useful information can still be obtained.
6. Store the 24 hour urine container in the refrigerator or an ice slush bath with the ice level at least as high as the urine level at all times. Outpatients can store the container in the home refrigerator or portable cooler.
7. Deliver the specimen to LMC Lab or affiliated location immediately after collection.



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24 Hour Urine Testing – Acceptable Specimen Containers

Test Name	Order Code	EPIC EAP	Acceptable Specimen <u>Keep refrigerated during collection</u>	Can <u>NOT</u> Use For Testing	Stability	NOTES
17 KETOSTEROIDS	17KSTO	LAB350	PLAIN JUG	TRACE ELEMENT JUG	Ambient: 4 hours Refrigerated: 2 weeks Frozen: 1 month	
5-HIAA (SEROTONIN)	5HIAAU	LAB2084	PLAIN JUG	TRACE ELEMENT JUG	Ambient: Unacceptable Refrigerated: 1 week Frozen: 2 months	Give patient diet instructions.
ALDOSTERONE	ALDO24	LAB354	PLAIN JUG	TRACE ELEMENT JUG	Ambient: 4 hours Refrigerated: 5 days Frozen: 1 month	
ANTIMONY	ANTIM	LAB1022	TRACE ELEMENT JUG	ACID or PLAIN JUG	Ambient: 5 days Refrigerated: 30 days Frozen: 30 days	Give patient medication instructions.
ARSENIC	ARSENU	LAB363	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: 1 week Refrigerated: 2 weeks Frozen: 1 year	Patient should avoid seafood consumption for 3 days prior to lab draw.



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CALCIUM	CAUR	LAB814	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: 48 hours Refrigerated: 4 days Frozen: 3 weeks	
CATECHOLAMINES	CATEFU	LAB373	PLAIN JUG	TRACE ELEMENT JUG	Ambient: Unacceptable Refrigerated: 1 week Frozen: 6 months	Give patient medication instructions.
CHLORIDE	CLU	LAB374	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: 24 hours Refrigerated: 1 week Frozen: 6 months	
CHROMIUM	CR24	LAB2050	TRACE ELEMENT JUG	ACID or PLAIN JUG	Ambient: 1 week Refrigerated: 2 weeks Frozen: 1 year	Give patient diet instructions.
CITRIC ACID	CITRIC	LAB3059	PLAIN JUG	TRACE ELEMENT JUG	Ambient: 8 hours Refrigerated: 1 week Frozen: Indefinitely	
COPPER	CU24	LAB380	TRACE ELEMENT JUG	ACID or PLAIN JUG	Ambient: 1 week Refrigerated: 2 weeks Frozen: 1 year	Give patient diet instructions.
CREATININE	CRE24	LAB712	PLAIN JUG	ACID or TRACE ELEMENT	Refrigerated: 5 days	



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CREATININE CLEARANCE	CREACL	LAB1765	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 5 days	Also collect SST or Lithium Heparin Plasma Tube. Please include patient height & weight.
DELTA AMINOLEVULINIC ACID	DELTAB	LAB2031	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: Unacceptable Refrigerated: 4 days Frozen: 1 month	Patient should avoid alcohol consumption for 24 hours prior to lab draw.
HEAVY METALS (Arsenic, Lead, Mercury and Cadmium)	HMPUR	LAB398	TRACE ELEMENT JUG	ACID or PLAIN JUG	Ambient: 48 hours Refrigerated: 5 days Frozen: 14 days	Patient should avoid seafood consumption for 3 days prior to lab draw.
IMMUNOFIXATION ELECTROPHORESIS	IFXU24	LAB2226	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 7 days	



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MAGNESIUM	MAGU	LAB405	PLAIN JUG	TRACE ELEMENT JUG	Ambient: 1 week Refrigerated: 1 week Frozen: 1 year	
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MERCURY	MISC1	LAB1978	TRACE ELEMENT JUG	ACID or PLAIN JUG	Ambient: 1 week Refrigerated: 2 weeks Frozen: 1 year	Patient should avoid seafood consumption for 3 days prior to lab draw.
METANEPHRINES (Normetanephrine, Metanephrine, and Total metanephrine)	METAFU	LAB409	PLAIN JUG	TRACE ELEMENT JUG	Ambient: Unacceptable Refrigerated: 2 weeks Frozen: 1 month	Give patient medication instructions.
OXALIC ACID	OXAL24	LAB421	ACID JUG	TRACE ELEMENT JUG	Ambient: 6 days Refrigerated: 7 days Frozen: 4 months	Give patient diet instructions.
PHOSPHORUS	PHOSUB	LAB2117	PLAIN JUG	TRACE ELEMENT JUG	Ambient: 8 hours Refrigerated: 48 hours Frozen: 6 months	
PORPHOBILINOGEN	PORBIB	LAB1071	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: Unacceptable Refrigerated: 4 days Frozen: 1 month	MUST PROTECT FROM LIGHT



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PORPHYRINS	POR24	LAB2083	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: Unacceptable Refrigerated: 7 days Frozen: 30 days	MUST PROTECT FROM LIGHT
Test Name	Order Code	EPIC EAP	Acceptable Specimen <u>Keep refrigerated during collection</u>	Can <u>NOT</u> Use For Testing	Stability	NOTES
POTASSIUM	KU24	LAB436	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 2 days	
PROTEIN ELECTROPHORESIS	PEU24	LAB1904	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 2 days	
PROTEIN, TOTAL	TPU24	LAB441	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 3 days	
SODIUM	NAU24	LAB446	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 7 days	
THALLIUM	MISC1	LAB1978	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: 1 week Refrigerated: 2 weeks Frozen: 1 year	
UREA CLEARANCE, 12HR	UREA12	LAB1910	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 7 days	Also collect SST or Lithium Heparin Plasma Tube.



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UREA CLEARANCE, 24HR	UREA24	LAB1911	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 7 days	Also collect SST or Lithium Heparin Plasma Tube.
UREA NITROGEN, 12 HR	UUN	LAB1908	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 7 days	Also collect SST or Lithium Heparin Plasma Tube.
UREA NITROGEN, 24HR	UUN24	LAB1909	PLAIN JUG	ACID or TRACE ELEMENT JUG	Refrigerated: 7 days	Also collect SST or Lithium Heparin Plasma Tube.
URIC ACID	URIC24	LAB841	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: 13 days Refrigerated: 13 days Frozen: 25 month	
VANILLYLMADELIC ACID	VMA	LAB452	PLAIN JUG	ACID or TRACE ELEMENT JUG	Ambient: Unacceptable Refrigerated: 1 week Frozen: 2 weeks	Give patient diet instructions.
ZINC	ZINCU	LAB3089	TRACE ELEMENT JUG	ACID or PLAIN JUG	Ambient: 1 week Refrigerated: 2 weeks Frozen: 1 year	Give patient diet instructions.