

جدول اطلاعات مواد نگهدارنده و حمل نمونه‌های ادرار

Test Name	Specimen Collection	Transport Temperature	Preparation
17-Hydroxycorticosteroids, Urine	24-hour urine. Refrigerated during collection. Also acceptable: Random urine. Freeze within 15 minutes of collection, preservative not required. Reported as mg/L, no reference interval provided.	Frozen.	Transfer 12 mL aliquot of urine from a well-mixed 24-hour collection to standard transport tubes. Also acceptable: Specimens refrigerated with preservatives are acceptable. Sample pH must be 5.0 - 7.0. Mix well, add 1 g boric acid/100 mL urine, adjust pH (with boric acid) to 5.0-7.0 and freeze. Record total volume, collection time, and pH on transport tube and test request form. Random specimens without preservative are acceptable if frozen within 15 minutes of collection.
17-Hydroxyprogesterone, Urine	24-hour urine. No special preservatives required.	Frozen. On dry ice is preferred. Separate specimens must be submitted when multiple tests are ordered.	Mix specimen well. Refrigerate during collection. Transfer 5 mL aliquot of urine to standard transport tubes. (Min: 1 mL) Submit total volume.
17-Ketosteroids, Urine	24-hour urine. Refrigerate during collection.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection into 2 standard transport tubes or 2 standard transport tubes containing 20 mg Sulfamic Acid. (Min: 3 mL/aliquot) Adequate refrigeration is the most important aspect of specimen preservation.
5-Hydroxyindoleacetic Acid (HIAA), Urine	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Refrigerated.	Transfer 4 mL aliquot from a well-mixed 24-hour or random collection to a standard transport tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Acylglycines, Quantitative, Urine	Random urine.	Frozen.	Transfer 6 mL urine to standard transport tubes and freeze immediately. (Min: 3 mL) Avoid dilute urine when possible.
Alcohol, Urine, Quant	Random urine.	Room temperature.	Transfer 4 mL urine without additives or preservatives to a standard transport tube. (Min: 1 mL)
Aldosterone, Urine	24-hour urine. Urine must be refrigerated during collection.	Frozen. Also acceptable: Refrigerated, if preserved with HCl or acetic acid.	Add 1 g boric acid per 100 mL urine. Transfer 4 mL aliquot of urine from a 24-hour collection to a standard transport tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form. Also acceptable: Preserved urine if the pH of the specimen is adjusted to 2-4 with 6M HCl or 50 percent acetic acid or unpreserved urine if frozen immediately after collection.
Alpha-1-Microglobulin, Urine	24-hour urine. Specimen must be refrigerated during collection.	Refrigerated.	Transfer a 4 mL aliquot from a well-mixed 24-hour collection to a standard transport tube. (Min: 0.4 mL) Do not add acid or other preservatives. Record total volume and collection time interval on transport tube and test request form.
Aminolevulinic Acid (ALA), Random Urine	Random urine.	Refrigerated.	Transfer a 4 mL aliquot from a well-mixed collection to a standard transport tube. (Min: 1.2 mL)
Aminolevulinic Acid (ALA), Urine	24 hour or random urine. Refrigerate 24-hour specimens during collection.	Refrigerated.	Transfer a 4 mL aliquot from a well-mixed 24-hour or random collection to a standard transport tube. (Min: 1.2 mL)
AMPH Urn Screen w/ Reflex	Random urine.	Room temperature.	Transfer 4.0 mL urine with no additives or preservatives to a standard transport tube. (Min: 2.0 mL)
Amphetamines (D/L Differentiation)	Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 2 mL urine to a standard transport tube. (Min: 0.7 mL)
Amphetamines, Urn, Quant	Random urine.	Room temperature	Transfer 0.5 mL urine with no additives or preservatives to a standard transport tube. (Min: 0.3 mL)
Amylase, Urine	24-hour or timed urine collection with no preservatives. Refrigerate during collection.	Refrigerated.	Mix timed urine collection well. Transfer 4 mL urine to a standard transport tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
Anabolic Steroids Screen w/ Rflx to Conf	Urine.	Refrigerated. Also acceptable: Frozen.	Transfer 4 mL urine to a standard Transport Tube. (Min: 1.6 mL)
Antidepressant Panel Quantitative, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 2 mL urine to a standard transport tube. (Min: 0.7 mL)
Arsenic, Fractionated, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container and should be refrigerated during collection. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot of urine from a well-mixed collection to trace element-free transport tubes. (Min: 2 mL)
Arsenic, Rndm Urn w/ Rflx to Fractionated	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 2 mL)
Arsenic, Urine w/ Reflex to Fractionated	24-hour or random urine collection. Specimen must be collected in a plastic container and refrigerated during collection. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 2 mL)
Arylsulfatase A, 24-Hour Urine	24-hour urine. Do not use preservatives. Keep refrigerated during collection.	Refrigerated.	Transfer 6 mL urine to standard transport tubes. (Min. 2.5 mL)
Barbiturates Detection, Urine	Random Urine	Refrigerated. If transport is prolonged: Refrigerate.	

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Barbiturates, Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4.0 mL urine with no additives or preservatives to a standard transport tube. (Min: 2.0 mL)
Barbiturates, Urn, Quant	Random urine.	Room temperature.	Transfer 3.5 mL urine with no additives or preservatives to a standard transport tube. (Min: 1.5 mL)
Barium Quantitative, Urine	Random urine in trace metal-free or acid- washed urine bottle.	Room temperature. Also acceptable: Refrigerated or frozen.	Transfer 1 mL urine to a standard transport tube. (Min: 0.4 mL)
Bence Jones Protein, Quant and Charac	24-hour urine. Refrigerate during collection. Also acceptable: Random urine or urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour collection to individual standard transport tubes. (Min: 3 mL)
Benzodiazepines Urn Screen w/reflex	Random urine.	Room Temperature	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 2 mL)
Benzodiazepines, Urn, Quant	Random urine.	Room temperature.	Transfer 0.5 mL urine with no additives or preservatives to a standard transport tube. (Min: 0.3 mL)
Beta-2-Microglobulin, Urine	Random urine.	Frozen	Transfer one 3 mL aliquot from a well-mixed random collection to a standard transport tube. (Min: 1 mL) If pH is greater than 8, lower pH to 6-8 by adding 1M HCL. If pH less than 6, increase pH to 6-8 by adding 5% NaOH. Titrate with appropriate preservative until pH of 6-8 has been reached. Record the pH on the transport tube and test request form.
Beta-hCG, Urine Qualitative	Urine in a plastic container. First-morning urine is the preferred specimen as it usually contains the highest concentration of beta- hCG; however, any specimen is suitable for testing.	Refrigerated.	Transfer 1 mL aliquot of urine to a standard transport tube. If frozen, mix after thawing. Do not refreeze.
Bicarbonate (HCO ₃), Urine	Random urine in sealed container.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Immediately upon collection, mix and transfer 4 mL urine to a standard transport tube. (Min: 0.3 mL) Do not expose to air.
BJProtein Qnt w/Rflx k/1 FLC w/Ratio, U	24-hour urine. Refrigerate during collection. Also acceptable: Random urine specimens and urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from well-mixed 24 hour collection to individual standard transport tubes. (Min: 3 mL) Record total volume and collection time interval on transport tube and test request form.
BK Virus Detection by PCR, Urine	Urine.	Frozen.	Transport 1 mL urine to a sterile container. (Min: 0.5 mL).
BK Virus, Quantitative by PCR	Lavender (EDTA), pink (K2EDTA) or serum separator tube OR urine.	Refrigerated.	Transport 1 mL whole blood, serum, plasma or urine in a sterile container. (Min: 0.5 mL).
Bladder Tumor Associated Ag Final Report	Urine.	Refrigerated.	Transport 2 mL urine.
Blastomyces dermatitidis Antigen EIA	Random urine. Also acceptable: plain red, serum separator tube, lavender EDTA or green (sodium or lithium heparin), CSF or BAL.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 0.8 mL urine, BAL or CSF to a standard transport tube. (Min: 0.8 mL). Transfer 1.2 mL serum or plasma to a standard transport tube. (Min: 1.2 mL).
Buprenorphine, Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube (Min: 2 mL)
Buprenorphine, Urn, Quant	Random urine.	Room temperature.	Transfer 2 mL urine with no additives or preservatives to a standard transport tube. (Min: 1 mL)
C. trachomatis & N. gonorrhoeae by TMA	Vaginal, male urethral, rectal, pharyngeal or endocervical specimen with APTIMA Unisex Swab Specimen Collection kit. OR First catch urine.	Refrigerated.	Swab: place blue swab in Swab Specimen Transport Tube, break shaft off at score line then recap tube. First Catch Urine: Transfer 2 mL urine to APTIMA Urine Specimen Transport Tube. Liquid level must be between fill lines on tube.
C. trachomatis L serovars (LGV) by PCR	Vaginal, rectal, cervical, urethral, genital, or penile swab with APTIMA Unisex Swab Specimen Collection kit. Also acceptable: Urine.	Refrigerated	APTIMA Swab: Place blue swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine to an APTIMA Urine Specimen Transport Tube. Liquid level must be between fill lines on tube. Swab in Viral Transport Media (UTM): Transfer swab to viral transport media.
Catecholamines Fractionated, Urine Free	24-hour or random urine. Refrigerate 24- hour specimen during collection.	Refrigerated. Also acceptable: Frozen.	Thoroughly mix entire collection (24-hour or Random) in one container. Transfer a 4 mL aliquot to a standard transport tube. (Min: 2.5 mL) Catecholamines are not stable above pH 7. The pH of such specimens must be adjusted by the addition of 6M HCl acid or sulfamic acid prior to transport. A pH less than 2 can cause assay interference. Record total volume and collection time interval on transport tube and test request form. Specimen preservation can be extended to 1 month refrigerated by performing one of the following: Option 1: Transfer a 4 mL aliquot (Min: 2.5 mL) to a standard transport tube. Adjust pH to 2.0-4.0 with 6M HCl. Option 2: Transfer a 4 mL aliquot (Min: 2.5 mL) to a standard transport tube containing 20 mg sulfamic acid. (Min: 2.5 mL).
Catecholamines Fractionated, Urine Vet	Random or 24-hour urine. Refrigerate 24- hour specimen during collection.	Refrigerated. Also acceptable: Frozen.	Transfer a 4 mL aliquot from a well-mixed collection to a standard transport tube. (Min: 2.5 mL) Preservation can be enhanced by adjusting the pH to 3-2 by adding an acid such as 6 mol/L HCl. Catecholamines are not stable above pH 7. The pH of such specimens must be adjusted by the addition of acid prior to transport. A pH less than 2 can cause assay interference.
Chlamydia and Gonorrhea with LGV reflex	Vaginal, rectal, cervical, or male urethral specimen with APTIMA Unisex Swab Specimen Collection kit. Also acceptable: First catch urine.	Refrigerated.	APTIMA Swab: Place blue swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. First Catch Urine: Transfer 2 mL urine to an APTIMA Urine Specimen Transport Tube. Liquid level must be between fill lines on tube.

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Chlamydia trachomatis by TMA	Vaginal, male urethral, rectal, pharyngeal, or endocervical specimen with APTIMA Unisex Swab Specimen Collection kit. OR First catch urine. OR Cervical brush in ThinPrep Pap test collection kit.	Refrigerated.	Swab: place blue swab in Swab Specimen Transport Tube, break shaft off at score line then recap tube. First catch urine: Transfer 2 mL urine to APTIMA Urine Specimen Transport Tube. Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an APTIMA Specimen Transfer Tube. To reduce the potential for contamination, ThinPrep specimens should be poured off, using sterile technique, into the APTIMA Specimen Transfer Tube prior to Cytology Testing.
Chloride, Random Urine	Random urine.	Refrigerated.	Transfer 1 mL aliquot of urine to a standard transport tube. (Min: 0.5 mL)
Chloride, Urine	24-hour urine (without additives). Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Transfer 1 mL aliquot of urine from a well-mixed collection to a standard transport tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
Citric Acid, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Adjust pH to less than or equal to 2 by adding 6M HCl. Transfer a 4 mL aliquot of urine to a standard transport tube. (Min: 0.5 mL) Record total volume, collection time interval, and pH on transport tube and test request form. Also acceptable: Specimens previously preserved with boric acid.
Cocain, Urn Screen w/reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 2 mL)
Cocaine and Metabolites Detection	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Mix well. Transfer 4 mL urine to a standard transport tube. (Min: 1 mL)
Cocaine Met, Urine, Quant	Random urine.	Room temperature.	Transfer 3.5 mL urine with no additives or preservatives to a standard transport tube. (Min: 1.5 mL)
Coccidioides Antigen by EIA	Urine, plain red, lavender (EDTA), pink (K ₂ EDTA), green (sodium heparin), green (lithium heparin), light blue (sodium citrate), CSF or BAL.	Refrigerated. Also acceptable: Frozen.	Urine or BAL: Transfer 1 mL urine or BAL to a standard transport tube. (Min: 0.5 mL) Serum or Plasma: Transfer 2 mL serum or plasma to a standard transport tube. (Min: 1.2 mL) CSF: Transfer 1 mL CSF to a standard Transport Tube. (Min: 0.8 mL)
Copper Level Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)
Copper, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)
Cortisol and Cortisone, Urine Free	24-hour or random urine. Refrigerate 24- hour specimen during collection.	Refrigerated.	Transport one 4 mL aliquot of urine. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Cortisol, Urine Free by LC-MS/MS	24-hour or random urine. Refrigerate 24- hour specimen during collection.	Refrigerated.	Transport one 4 mL aliquot of urine. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Creatine Disorders Panel, Urine	Random or timed urine.	Frozen.	Transfer 2 mL urine to a standard transport tube and freeze immediately. (Min: 0.5 mL)
Creatine Urine	Random urine.	Frozen.	Transfer 2 mL urine to a standard transport tube and freeze immediately. (Min: 0.5 mL)
Creatinine Clearance, Urine	24-hour urine. Specimen must be refrigerated during collection. AND plasma separator tube or serum separator tube, collected within 48 hours of initiating urine collection.	Refrigerated.	Transfer one 3 mL aliquot from a well-mixed 24-hour collection (Min: 0.5 mL) AND 1 mL serum or plasma (Min: 0.2 mL) to individual standard transport tubes. Record total volume and collection time interval on transport tube and test request form.
Creatinine, 24-Hour Urine	24-hour urine. Specimen must be refrigerated during collection. Also acceptable: Random urine (no reference intervals).	Refrigerated.	Transfer one 3 mL aliquot to a standard transport tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form. Also acceptable: Specimens previously preserved with 6M HCl, boric acid, or %5 NaOH.
Culture, Acid Fast Bacilli	Sputum. OR body fluid, CSF, gastric aspirate, tissue, or urine.	Refrigerated.	Sputum: Transfer (for each collection) 5-10 mL to a sterile container. (Min: 1 mL) Body Fluids or CSF: Transfer 5 mL to a sterile container. (Min: 1 mL) Gastric Aspirates: Must be neutralized (pH7) with sodium carbonate if transport is delayed for more than four hours. Transfer 5-10 mL to a sterile container. (Min: 1 mL) Tissue: Transfer to a sterile container. (Min: Visible) Urine: Transfer at least 40 mL to a sterile container. (Min: 10 mL) Place each specimen in an individual, sealed bag.
Culture, Urine	Midstream urine or foley catheter urine.	Unpreserved: Refrigerated. Boric Acid Transport Tube: Room temperature	Transfer urine to a sterile container or boric acid transport tube. (Min: 1 mL).
Cyclobenzaprine Quantitative, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature and frozen.	Transfer 1 mL urine to a standard transport tube. (Min: 0.4 mL)
Cystinuria Panel	Random urine. Avoid dilute urine when possible.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Mix urine well. Transfer 8 mL urine to standard transport tubes and freeze immediately. (Min: 3 mL)
Cytomegalovirus by Qualitative PCR	Lavender (EDTA), pink (K ₂ EDTA), or serum separator tube. Amniotic fluid, bronchoalveolar lavage (BAL), CSF, ocular fluid, tissue, or urine.	Frozen.	Separate serum or plasma from cells. Transfer 1 mL plasma, serum, amniotic fluid, BAL, CSF, ocular fluid, or urine to a sterile container. (Min: 0.5 mL) Tissue: Transfer to a sterile container and freeze immediately.
Deoxyypyridinoline Crosslinks, Urine	Urine.	Frozen.	Transfer 3.5 mL aliquot from a well-mixed, first-morning urine to a standard transport tube. (Min: 0.5 mL)

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Diphenhydramine Quantitative, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 1 mL urine to a standard transport tube. (Min: 0.4 mL)
Diuretic Screen, Urine	Random urine.	Refrigerated. Also acceptable: Frozen.	Transfer 10 mL urine to standard transport tubes. (Min: 1.2 mL)
DNA Analysis - Ploidy and S-Phase	Tumor tissue, body fluid, peripheral blood in green (sodium or lithium), bone marrow in green (sodium or lithium), OR urine/bladder washings.	Tissue (paraffin embedded), Peripheral Blood or Bone Marrow: Refrigerated Body Fluid or Urine/Bladder Washings: Refrigerated	Tissue: Paraffin embed tissue block enriched with tumor OR Body Fluid: Transport: 100 mL body fluid. (Min: 10 mL) OR Peripheral Blood: Transport 5 mL whole blood. OR Bone Marrow: Transport 2 mL bone marrow (specimens with low mononuclear cell counts may require more volume). OR Urine/Bladder Washings: Centrifuge and remove supernatant. The cell pellet should then be re-suspended in a cell culture media such as Hank's Balanced Salt Solution or RPMI.
Ehlers-Danlos Syndrome Type VI Screen	Urine. First-morning void. Also acceptable: Random specimens.	Frozen.	Transfer 4 mL urine to a standard transport tube. (Min: 3 mL)
Electrolyte Panel Urine	24-hour or random urine. Refrigerate during collection.	Refrigerated.	Do not adjust specimen pH. Transfer a 1 mL aliquot of urine from a well-mixed collection to a standard transport tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
Eosinophil Urine	Random urine.	10 mL aliquot from a well-mixed random collection at 2-8 °C. (Min: 5 mL)	
Ethanol, Urine, Qualitative - Medical	Fresh random urine.	Refrigerated.	Mix specimen well. Transfer 10 mL aliquot urine to a tightly sealed container for storage and transport. (Min: 0.5 mL)
Ethyl Gluc Scrm w/Rflx to Conf, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 1 mL)
Ethyl Glucuronide/ Sulfate, Urn, Quant	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 1 mL)
Fat Qualitative, Urine	Random urine.	Refrigerated.	Mix specimen well. Transfer 4 mL urine to a standard transport tube. (Min: 1 mL).
Flunitrazepam/ Metabolite, Urine Rflx	Random urine.	Refrigerated. Also acceptable: Frozen.	Transfer 3 mL urine to a standard transport tube. (Min: 1.4 mL)
Fluoride Quantitative, Urine	Urine collected in a trace metal-free or acid- washed plastic container.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 5 mL urine to trace element-free transport tubes. (Min: 2.2 mL)
Gabapentin, Urine	Random urine.	Refrigerated.	Transfer 1 mL urine to a standard transport tube. (Min: 0.6 mL)
Gamma-Hydroxybutyric Acid, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 5 mL urine to a standard transport tube. (Min: 2.4 mL)
Glucose Urine	24-hour urine. Specimen must be refrigerated during collection. Also Acceptable: Random urine (no reference intervals).	Frozen.	Mix 24 hour urine collection well. Transfer 4 mL to a standard transport tube. (Min 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
Glutaryl carnitine Quantitative, Urine	Random urine. Avoid dilute urine when possible.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 2.5 mL urine to a standard transport tube and freeze immediately. (Min: 0.5 mL)
Heavy Metals Panel 3, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 2 mL)
Heavy Metals Panel 3, Urine with Reflex	24-hour or random urine collection. Specimen must be collected in a plastic container and should be refrigerated during collection. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 2 mL)
Heavy Metals Panel 4, Urine with Reflex	24-hour or random urine collection. Specimen must be collected in a plastic container and should be refrigerated during collection. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 2 mL)
Heavy Metals Panel 6, Urine with Reflex	24-hour or random urine collection. Specimen must be collected in a plastic container and should be refrigerated during collection. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 2 mL)
Hemoglobin, Urine	Random urine.	Frozen. Also acceptable: Refrigerated.	Centrifuge and separate urine from cells and other sediment. Transfer 4 mL aliquot of supernatant to a standard transport tube. (Min: 0.7 mL)
Heroin, Screen w/Rflx to Confirm, Urn	Random urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 4 mL urine to a standard transport tube. (Min: 0.94 mL)

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Homocystine Quantitative, Urine	24-hour urine. Specimen must be refrigerated during collection. Also acceptable: Random urine (reported as homocystine/creatinine ratios).	Frozen.	Mix well. Transfer 5 mL urine to standard transport tubes. (Min: 3 mL) Record total volume and collection time interval on transport tube and test request form.
Homovanillic Acid (HVA), Urine	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Refrigerated.	Transfer 4 mL aliquot from a well-mixed 24-hour or random collection to a standard transport tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Hydrocarbon and Oxygenated Volatiles, Ur	Urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 2 mL urine to a standard transport tube. (Min: 0.7 mL)
Hydrochlorothiazide Quantitative, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 1 mL urine to a standard transport tube. (Min: 0.4 mL)
Indicans, Urine Qualitative	Random urine.	Frozen.	Do not add preservatives. Transfer two 4 mL aliquots from a well-mixed random collection to individual standard transport tubes. (Min: 3 mL)
Iodine, Urine	24-hour or random urine collection.	Refrigerated.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free tubes. (Min: 1 mL)
JC Virus by PCR	Lavender (EDTA), pink (K ₂ EDTA) or serum separator tube. OR CSF or urine.	Frozen.	Separate serum or plasma from cells. Transfer 1 mL serum, plasma, CSF or urine to a sterile container. (Min: 0.5 mL)
Kappa Free Light Chains, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection to individual standard transport tubes. (Min: 3 mL) Record total volume and collection time interval on transport tube and test request form.
Kappa/Lambda Free Light Chains Qual, Urn	24-hour urine. Refrigerate during collection. Also acceptable: Random specimens and urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection to individual standard transport tubes. (Min: 4 mL) Record total volume and collection time interval on transport tube and test request form.
Kappa/Lambda Free Light Chains Quant Urn	24-hour urine. Refrigerate during collection. Also acceptable: Random urine specimens and urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour collection to individual standard transport tubes. (Min: 3 mL) Record total volume and collection time interval on transport tube and test request form.
Keratan Sulfate, Qnt by LC-MS/MS, Urine	Urine.	CRITICAL FROZEN. Separate specimens must be submitted with multiple tests are ordered.	Transfer 2 mL urine to standard transport tube and freeze immediately. (Min: 1 mL)
Kidney Stone Risk Panel, Urine	24-hour urine. Refrigerate during collection.	Frozen.	Transport four separate 4 mL aliquots from a well-mixed 24-hour urine collection using Calculi Risk/Supersaturation Urine Collection Kit. Aliquot according to the following specifications: 1st aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. 2nd aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. 3rd aliquot (pH 9): Transfer 4 mL urine into a Sodium Carbonate Tube. (Min: 4 mL) Mix well. 4th aliquot: Transfer 4 mL urine into an Unpreserved Tube. (Min: 4 mL) Freeze specimens immediately after aliquoting. Do not exceed 4 mL in tubes. Additional information required: Record total volume and collection time on tube and test request form.
Lambda Free Light Chains, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection to individual standard transport tubes. (Min: 3 mL) Record total volume and collection time interval on transport tube and test request form.
Lead, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)
Lead, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to Trace Element-Free Transport Tubes. (Min: 1 mL)
Legionella Pneumophila Antigen, Urine	Random urine.	Refrigerated.	Mix specimen well. Transfer 4 mL urine to a standard transport tube. (Min: 1 mL)
Lipase, Urine	24-hour or timed urine collection. Sample must be refrigerated during collection.	10 mL aliquot from a well-mixed 24-hour or timed collection at 2-8 (Min: 0.5 mL)	Record total volume and collection time interval on transport tube and test request form.
Magnesium, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Adjust pH to 1 by adding 6M HCl (approximately 10 mL HCl/24-hour specimen based on normal adult output of 1000-2000 mL/24 hours. Pediatric specimens will require less than 10 mL to reach the correct pH). Record total volume and collection time interval on transport tube and test request form. Transfer 4 mL aliquot of urine from a well-mixed 24-hour collection to a standard transport tube. (Min: 0.5 mL)
Manganese, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)

Test Name	Specimen Collection	Transport Temperature	Preparation
Melanin, Urine	Random urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Protect from light during collection, storage, and shipment. Transfer a 4 mL aliquot (Min: 2.5 mL) from a well-mixed urine collection to an amber transport tube.
Meperidine and Metabolite, Urn, Quant	Random urine.	Refrigerated.	Transfer 2 mL urine with no additives or preservatives to a standard transport tube. (Min: 1 mL)
Meperidine, Urn Screen w/Reflex	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 2 mL)
Mercury, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL).
Mercury, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)
Metformin Quantitation, Urine	Random urine.	Refrigerated.	Transfer 1 mL urine to a standard transport tube. (Min: 0.3 mL)
Methadone and Met, Urn, Quant	Random urine.	Room temperature.	Transfer 1 mL with no additives or preservatives urine to a standard transport tube. (Min: 0.5 mL)
Methadone, Qual, Urine	Random urine.	Refrigerated.	Mix well. Transfer 4 mL urine to a standard transport tube. (Min: 1 mL) Samples within a pH range of 3 to 11 are suitable for testing with this assay.
Methaqualone Quantitative, Urine	Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 2 mL urine to a standard transport tube. (Min: 0.7 mL)
Methylmalonic Acid, Urine	24-hour or random urine. Refrigerate 24- hour specimens during collection.	Frozen.	Transfer a 4 mL aliquot from a well-mixed 24-hour or random urine collection to a standard transport tube and refrigerate or freeze immediately. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Methylphenidate and Met, Urn, Quant	Random urine.	Refrigerated.	Transfer 2 mL urine with no additives or preservatives to a standard transport tube. (Min: 1 mL)
Microalbumin, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Random or other timed urine.	Refrigerated.	Transfer 1 mL aliquot of urine from a well-mixed collection to a standard transport tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
Myoglobin, Urine	Random or 24-hour urine. Refrigerate during collection.	Refrigerated.	Thoroughly mix entire collection, then, perform one of the two processing options below: Option 1: Immediately after collection, adjust pH to 8-9 by adding 10 percent Na ₂ CO ₃ . Transfer 1 mL aliquot urine to a standard transport tube. (Min: 0.5 mL) Option 2: Immediately after collection, transfer a maximum of 4 mL urine to a standard transport tube pre-filled with Sodium Carbonate supply. (Min: 0.5 mL)
N. gonorrhoeae by TMA	Vaginal, male urethral, rectal, pharyngeal, or endocervical specimen with APTIMA Unisex Swab Specimen Collection kit. OR First catch urine. OR Cervical brush in ThinPrep Pap test collection kit.	Refrigerated.	Swab: place blue swab in Swab Specimen Transport Tube, break shaft off at score line then recap tube. First Catch Urine: Transfer 2 mL urine to APTIMA Urine Specimen Transport Tube. Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an APTIMA Specimen Transfer Tube. To reduce the potential for contamination, ThinPrep specimens should be poured off, using sterile technique, into the APTIMA Specimen Transfer Tube prior to Cytology Testing.
Naproxen, Urine	Random urine.	Refrigerated.	Transfer 1 mL urine to a standard transport tube. (Min: 0.2 mL)
Nickel, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)
Nicotine and Mets, Urn, Quant	Random urine.	Room temperature.	Transfer 4 mL with no additives or preservatives urine to a standard transport tube. (Min: 1 mL)
Nitrogen Total, Urine	24-hour urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 10 mL aliquot from a well-mixed 24-hour urine collection to standard transport tubes. (Min: 2 mL) Do not use preservatives.
N-Methylhistamine, 24-Hour Urine	24-hour urine.	Refrigerated. Also acceptable: Frozen.	Transfer 5 mL urine to a standard transport tube. (Min: 3 mL)
Organic Acids, Urine	Random urine. Avoid dilute urine when possible.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 9 mL urine to standard Tubes and freeze immediately. (Min: 3mL- for volumes less than 3mL, contact the Biochemical Genetics Lab before sending the specimen) Avoid dilute urine when possible.
Orotic Acid and Orotidine, Urine	First-morning urine is preferred.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Urine must be refrigerated or frozen within 24 hours of collection Transport 2 mL urine. (Min: 1 mL) Freeze ASAP or within 2 hours of collection.
Osmolality, Urine	Random urine.	Frozen.	Transfer 1 mL aliquot from a well-mixed random urine to a standard transport tube. (Min: 0.5 mL)
Ova & Parasite Exam, Body Fluid or Urine	Body fluid or urine.	Refrigerated.	Transfer 4 mL body fluid or urine to a standard transport tube. (Min: 1 mL)

Test Name	Specimen Collection	Transport Temperature	Preparation
Oxalate, Total, Urine	24-hour urine. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered	Thoroughly mix entire collection (24-hour) in one container. Preserve the specimen as described below. Freeze specimens immediately after aliquoting. Do not exceed 4 mL in 10 mg Sulfamic Acid tubes. Preserved: Transfer 4 mL aliquot to a transport tube with 20 mg Sulfamic Acid. Mix well. (Min: 1.5 mL) Unpreserved: If the collection tube with Sulfamic Acid is not available, transport a 4 mL unadjusted aliquot of urine. (Min: 1.5 mL)
Pathology Bladder Tumor Antigen Request	Voided urine or urine from a catheterized patient.	Refrigerated.	Transfer 2 mL urine to a standard Transport Tube.
PCP Urn Screen w/ Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 2 mL)
pH, Urine	Random urine.	Refrigerated.	Mix well. Transfer 4 mL urine to a standard transport tube. (Min: 2 mL)
Phenazopyridine, Urine	Random urine.	Room temperature.	Transfer 2 mL urine to a standard transport tube. (Min: 1 mL)
Phencyclidine (PCP), Urn, Quant	Random urine.	Room temperature.	Transport 1 mL urine. (Min: 0.5 mL)
Phenol Exposure Quantitative, Urine	Urine.	Refrigerated. Also acceptable: Frozen.	Transfer 4 mL urine to a standard transport tube. (Min: 1.9 mL)
Phenylpropanolamine, Urine	Random urine.	Refrigerated.	Transfer 1 mL urine to a standard transport tube. (Min: 0.5 mL)
Phosphorus, Urine	24-hour urine. Refrigerate specimen during collection. Also acceptable: Random urine.	Frozen.	Mix entire 24-hour collection. Adjust pH to 1.5-2.0 by adding 6M HCl in 1 mL increments. Transfer one 3 mL aliquot from a well-mixed 24-hour collection to a standard transport tube. (Min: 0.5 mL) Record total volume, collection time interval, and pH on transport tube and test request form.
Porphobilinogen (PBG), Random Urine	Random urine.	Frozen.	Protect from light. Transfer an 8 mL aliquot from a well-mixed collection to Amber Transport Tubes. (Min: 3.5 mL)
Porphobilinogen Quantitative Urine	Random or 24-hour urine. Refrigerate 24- hour specimens during collection.	Frozen.	Protect from light. Transfer 8 mL aliquot from a random or well-mixed 24-hour collection to Amber Transport Tubes. (Min: 3.5 mL) Record total volume and collection time interval on transport tube and test request form.
Porphyrins and Porphobilinogen	24-hour or random urine. Refrigerate 24- hour specimens during collection.	Frozen.	Protect from light. Transfer 8 mL aliquot to an amber transport tube. (Min: 4 mL) Record total volume and collection time interval on transport tube and test request form.
Porphyrins, Fractionation and Quant, Urn	24-hour or random urine. Refrigerate 24- hour specimens during collection.	Frozen.	Protect from light. Transfer 4 mL aliquot of urine to an amber transport tube. (Min: 2 mL) Record total volume and collection time interval on transport tube and test request form.
Potassium Urine	24-hour or random urine without additives. Refrigerate during collection.	Refrigerated.	Transfer a 1 mL aliquot of urine from a well-mixed collection to a standard transport tube. (Min: 0.2 mL) Record total volume and collection time interval on transport tube and test request form.
Pseudoephedrine, Urine	Random urine.	Refrigerated.	Transfer 1 mL urine to a standard transport tube. (Min: 0.5 mL)
Purine and Pyrimidine Panel, 8ULQH	Random urine.	Frozen.	Transfer 3 mL urine to a standard transport tube. (Min: 1 mL)
Pyridinium Crosslinks (Total), Urine	Urine.	Frozen.	Transfer 3.5 mL aliquot from a well-mixed, first-morning urine to a standard transport tube. (Min: 0.5 mL)
Pyridinoline and Deoxypyridin	Urine.	Frozen.	Transfer 8 mL urine to standard transport tubes. (Min: 4 mL)
Pyridoxine-Dependent Epilepsy Panel U	Random urine. First morning urine is preferred.	CRITICAL FROZEN (preferred). Refrigerated specimens are acceptable for testing if frozen within 24 hours from start of collection.	Transfer 1 mL urine to a standard transport tube and freeze immediately. (Min: 0.3 mL)
Selenium Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)
Sexually Transmitted Disease Panel 1	Vaginal, endocervical or male urethral swab in APTIMA Unisex Swab Specimen Collection kit. OR First catch urine. OR Cervical brush in ThinPrep Pap test collection kit.	Refrigerated.	Swab: place blue swab in Swab Specimen Transport Tube, break shaft off at score line then recap tube. First Catch Urine: Transfer 2 mL urine to APTIMA Urine Specimen Transport Tube. Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an APTIMA Specimen Transfer Tube.
Silicon, Urine	Random urine in a trace metal-free or acid- washed container.	Refrigerated.	Transport 6 mL urine. (Min: 2.7 mL)
Silver, Urine	Random urine in a trace metal-free container.	Refrigerated.	Transfer 1 mL urine to a foil-wrapped trace element-free transport tube. (Min: 0.5 mL) Protect from light.
Sodium, Urine	24-hour urine with no additive. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Transport 1 mL aliquot of urine from a well-mixed collection. (Min: 0.2 mL) Record total volume and collection time interval on transport tube and test request form.
Specific Gravity, Urine	Random urine.	Refrigerated.	Transport 10 mL aliquot from a well-mixed urine collection. (Min: 1 mL)

Test Name	Specimen Collection	Transport Temperature	Preparation
Stimulant Amines Detection	Random urine.	Frozen. Also acceptable: Room temperature or refrigerated.	Mix well. Transfer 4 mL urine to a standard transport tube. (Min: 1 mL)
Streptococcus pneumoniae Ag, Urine	Random urine.	Refrigerated or frozen.	Mix specimen well. Transfer 4 mL urine to a standard transport tube. (Min: 1 mL)
Sulfate, Urine	24-hour urine. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 4 mL urine to a standard transport tube. (Min: 2 mL) Additional Information: Record total volume and collection time on tube and test request form.
Sulfonylurea Hypoglycemics Panel, Urine	Random urine.	Refrigerated. Also acceptable: Frozen	Transfer 5 mL urine to standard transport tubes. (Min: 1.2 mL)
Supersaturation Profile, Urine	24-hour urine. Refrigerate during collection.	Frozen.	Transport four separate 4 mL aliquots from a well-mixed 24-hour urine collection using Calculi Risk/Supersaturation Urine Collection Kit. Aliquot according to the following specifications: 1st aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. 2nd aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. 3rd aliquot (pH 9): Transfer 4 mL urine into a Sodium Carbonate Tube. (Min: 4 mL) Mix well. 4th aliquot: Transfer 4 mL urine into an Unpreserved Tube. (Min: 4 mL) Freeze specimens immediately after aliquoting. Do not exceed 4 mL in tubes. If collection kit is unavailable, transport four 4 mL unadjusted aliquots of urine.
Thallium, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)
THC Metabolite, Urn, Quant	Random urine.	Room temperature.	Transfer 1 mL urine with no additives or preservatives to a standard transport tube. (Min: 0.5 mL)
THC Urn Screen w/ Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 2 mL)
Thiocyanate, 24-Hour Urine	24-hour urine. Specimen must be refrigerated during collection.	Refrigerated.	Transport 25 mL aliquot from a well-mixed, 24-hour urine. (Min: 2 mL) Record total volume and collection time on transport tube and test request form.
Thiocyanate, Random Urine	Random urine.	Refrigerated.	Mix specimen well. Transport 20 mL aliquot of urine. (Min: 2 mL)
Titanium, Urine	Random urine in a trace-metal-free or acid-washed-plastic container.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transport 2 mL urine. (Min: 0.6 mL)
Total Protein, Urine	24-hour urine with no additive. Also acceptable: Random urine.	Refrigerated.	Transfer 4 mL aliquot of urine from a well-mixed collection to a standard transport tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Tramadol and Metabolites, Urn, Quant	Random urine.	Room temperature.	Transfer 2 mL urine with no additives or preservatives a standard transport tube. (Min: 1 mL)
Tramadol, Urn Screen w/ Reflex	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to a standard transport tube. (Min: 2 mL)
Trichomonas vaginalis by TMA	Vaginal, endocervical or male urethral swab in APTIMA Unisex Swab Specimen Collection kit. OR First catch urine. OR Cervical brush in ThinPrep Pap test collection kit.	Refrigerated.	Swab: place blue swab in Swab Specimen Transport Tube, break shaft off at score line then recap tube. First Catch Urine: Transfer 2 mL urine to APTIMA Urine Specimen Transport Tube. Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an APTIMA Specimen Transfer Tube.
Tricyclic Antidepressants, Quant, Urine	Random urine.	Refrigerated.	Transfer 2 mL urine to standard transport tube. (Min: 0.7 mL)
Urea Clearance	24-hour urine (refrigerate during collection). AND Plasma Separator Tube (PST) or Serum Separator Tube (SST), collected within 48 hours of initiating urine collection.	Refrigerated.	Transfer one 3 mL aliquot of urine from a well-mixed 24-hour collection to a standard transport tube. (Min: 0.5 mL) AND transfer 1 mL serum or plasma to a standard transport tube. (Min: 0.2 mL)
Urea Nitrogen, Urine	24-hour urine with no additive. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Transfer 3 mL aliquot from a well-mixed 24-hour collection to a standard transport tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
Ureaplasma and Mycoplasma Species by PCR	Genital swab, urine, or cervical or vaginal specimens with the ThinPrep Pap Test Collection kit.	Frozen	Transfer genital swab or 1 mL urine to viral transport media. Vortex ThinPrep PreservCyt solution and transfer 1 mL to a sterile container. (Min: 0.5 mL)
Uric Acid, Urine	24-hour urine. Refrigerate specimen during collection. Also acceptable: Random urine.	Refrigerated.	Urine pH must be adjusted to greater than 8.0. If pH is less than or equal to 8.0, adjust pH to greater than 8.0 by adding 5 percent NaOH. Mix well and allow entire 24-hour collection to stand for 15 minutes. Recheck pH and readjust if necessary. Transfer one 3 mL aliquot from a well-mixed 24-hour collection to a standard transport tube. (Min: 0.5 mL) Record total volume, collection time interval, and pH on transport tube or aliquot tube and on test request form.
Urinalysis with Reflex to Culture	Clean Catch first morning or random urine.	Refrigerated.	Transport 10 mL sterile aliquot from a well-mixed random urine. (Min: 3 mL)

Test Name	Specimen Collection	Transport Temperature	Preparation
Urinalysis, Complete	Random urine.	Refrigerated.	Transport 10 mL aliquot from a well-mixed random urine. (Min: 3 mL)
Urinalysis, Dipstick	Random urine.	10 mL aliquot from a well-mixed random collection at 2-8 °C. (Min: 5 mL)	
Urinalysis, Microscopy	Random urine.	Refrigerated.	Transport 10 mL aliquot from a well-mixed random urine. (Min: 3 mL)
Urine Toxicology Screen	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Mix well. Transfer 4 mL urine to a standard transport tube. (Min: 1 mL)
UroVysion FISH	Urine (second morning void) in ThinPrep UroCyte Urine Collection Kit.	Refrigerated.	For purposes of obtaining the greatest yield of diagnostic material, a second-morning, clean-catch voided urine specimen should be collected.
Vanillylmandelic Acid (VMA), Urine	24-hour or random urine. Refrigerate 24- hour specimens during collection.	Refrigerated.	Transfer 4 mL aliquot from a well-mixed 24- hour or random collection to a standard transport tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
VMA and HVA, Urine	24-hour or random urine. Refrigerate 24- hour specimen during collection.	Refrigerated.	Transfer 4 mL aliquot from a well mixed 24- hour or random collection to a standard transport tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Warfarin, Urine	Random urine.	Room temperature.	Transfer 2 mL urine to a standard transport tube. (Min: 0.5 mL)
Xylose Absorption Test, Adult 25g dose	Fasting serum, five-hour urine, and two-hour serum according to the following instructions.	Refrigerated.	1. Just prior xylose administration, patient should empty his or her bladder (DO NOT collect this urine). 2. Just prior to xylose administration, collect first serum specimen (Min: 0.5 mL). Allow serum to clot completely at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Label this specimen as "FASTING SERUM" and prepare for transport. 3. Give adults 25 g D-xylose in 250 mL water. Encourage the patient to drink an additional 250 mL water following the xylose dose. The patient may have water as desired, but no other food or fluids. Smoking should be prohibited. The patient should rest in a chair or on a bed until completion of test. Mild diarrhea is common following xylose ingestion. 4. Immediately following the xylose dose, collect all urine for the next five hours. Measure and record the volume, mix well, and remove a 5 mL aliquot (Min: 3 mL) and prepare for transport. Label this specimen as "FIVE-HOUR URINE." Record the total volume and the xylose dose given on the urine aliquot tube. 5. Two hours after administration of xylose dose, collect the second serum specimen (Min: 0.5 mL). Allow serum to clot completely at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Label this specimen as "TWO-HOUR SERUM" and prepare for transport. 6. Record the xylose dose given and the total volume of the five-hour urine on the test request form. Failure to include all required information will result in delay of turnaround time.
Xylose Absorption Test, Child	Fasting serum, five-hour urine, and one- hour serum according to the following instructions.	Refrigerated.	1. Just prior xylose administration, patient should empty his or her bladder (DO NOT collect this urine). 2. Just prior to xylose administration, collect first serum specimen (Min: 0.5 mL). Allow serum to clot completely at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Label this specimen as "FASTING SERUM" and prepare for transport. 3. Give children 0.5 g D-xylose per kilogram of body weight, up to 25 g; give xylose in water (5 mL of water per 0.5 g of xylose, up to 250 mL water). Encourage the patient to drink additional water following the xylose dose. The patient may have water as desired, but no other food or fluids. The patient should rest in a chair or on a bed until completion of test. Mild diarrhea is common following xylose ingestion. 4. Immediately following the xylose dose, collect all urine for the next five hours. Measure and record the volume, mix well, and remove a 5 mL aliquot (Min: 3 mL) and prepare for transport. Label this specimen as "FIVE-HOUR URINE." Record the total volume and the xylose dose given on the urine aliquot tube. 5. One hour after administration of xylose dose, collect the second serum specimen (Min: 0.5 mL). Allow serum to clot completely at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Label this specimen as "ONE-HOUR SERUM" and prepare for transport. 6. Record the xylose dose given and the total volume of the five-hour urine on the test request form. -If unable to collect pediatric urine samples, testing will be completed with a disclaimer, provided both serum specimens are received. -Failure to include all required information will result in delay of turnaround time.
Xylose Absorption, Adult 5g dose	Fasting serum, five-hour urine, and two-hour serum according to the following instructions.	Refrigerated.	1. Just prior xylose administration, patient should empty his or her bladder (DO NOT collect this urine). 2. Just prior to xylose administration, collect first serum specimen (Min: 0.5 mL). Allow serum to clot completely at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Label this specimen as "FASTING SERUM" and prepare for transport. 3. Give adults 5 g D-xylose in 250 mL water. Encourage the patient to drink an additional 250 mL water following the xylose dose. The patient may have water as desired, but no other food or fluids. Smoking should be prohibited. The patient should rest in a chair or on a bed until completion of test. Mild diarrhea is common following xylose ingestion. 4. Immediately following the xylose dose, collect all urine for the next five hours. Measure and record the volume, mix well, and remove a 5 mL aliquot (Min: 3 mL) and prepare for transport. Label this specimen as "FIVE-HOUR URINE." Record the total volume and the xylose dose given on the urine aliquot tube. 5. Two hours after administration of xylose dose, collect the second serum specimen (Min: 0.5 mL). Allow serum to clot completely at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Label this specimen as "TWO-HOUR SERUM" and prepare for transport. 6. Record the xylose dose given and the total volume of the five-hour urine on the test request form. Failure to include all required information will result in delay of turnaround time.
Zika Virus by PCR	Lavender (EDTA), pink (K2EDTA), Serum Separator Tube (SST), or urine.	Frozen.	Separate serum or plasma from cells. Transfer 1 mL serum, plasma, or urine to a sterile container. (Min: 0.5 mL)

Test Name	Specimen Collection	Transport Temperature	Preparation
Zika Virus by PCR, Urine	Urine and patient-matched serum separator tube (SST).	Frozen.	Urine: Transfer 1 mL urine to a sterile container. (Min: 0.5 mL) Serum: Collect and retain 2 mL of patient-matched serum at the client site in the event that serological follow-up testing is needed. (Min: 1 mL)
Zinc, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. Studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to trace element-free transport tubes. (Min: 1 mL)

* ARUP Laboratories - CORP-APPEND-0249I, Rev 8, January 2017