Elliot Health System
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Laboratory Services

TECHNICAL BULLETIN

Urine Specimen Collection for Urinalysis and Culture

In order to report reliable and clinically valid test results, urine specimens submitted for testing must be collected and stored according to guidelines below before reaching the laboratory. Specimens collected or stored incorrectly are subject to rejection.

Urine Specimen Sources Acceptable for Culture and Urinalysis:

- Clean voided mid-stream catch
- Suprapubic aspirate
- Cystoscopic urine
- Straight catheter (In & Out)
- Indwelling catheter (catheter port)

Submit any of the above urine samples in a labeled sterile screw capped urine cup, sterile conical tube, or in a BD vacutainer urine preservative tube. Urine specimens should be stored refrigerated (2-8°C) and transported to the laboratory within 2 hours of collection. Urine samples in the BD vacutainer tube are stable for 48 hours. No more than one specimen of the same source should be submitted for culture within a 24-hour period.

Collecting a Clean Catch Urine Specimen for the Female Patient (Culture, Urinalysis)

1. Wash hands thoroughly with soap and water, rinse and dry them on a disposable paper towel.
2. Open Towelette® and container, careful not to touch rim or inside of container.
3. To cleanse periurethral area (labial folds, vulva, urethral meatus) spread labia with 1 hand, wipe area 3 times front to back, each time with a fresh Towelette®: 1-right side/2-left side/3-down the middle.
4. Discard Towelette® after each cleansing.
5. Begin to urinate into toilet. Void approximately 20 mL to 25 mL and catch a portion of the rest of the urine in container without stopping stream. Do not touch legs, vulva, or clothing with cup.
6. Screw cap tightly onto container.
7. Place **labeled** specimen container in biohazard bag.
8. Refrigerate specimen within 1 hour of collection if it cannot be tested immediately. Specimen is stable in refrigerator for 24 hours after collection.
9. If a culture and sensitivity is to be performed on clean catch specimen, immediately transfer appropriate volume to a urine C&S grey-top VACUTAINER®, which contains a preservative that stabilizes any bacteria present in the specimen, following collection. Urine in this tube is stable for 48 hours. If other testing, such as routine urinalysis, is requested on the same urine specimen, in addition to the culture, submit original collection container for all other tests.

Collecting a Clean Catch Urine Specimen for the Male Patient (Culture, Urinalysis)

1. Wash hands thoroughly with soap and water, rinse and dry them on a disposable paper towel.
2. Retract foreskin completely. Cleanse tip of penis with Towelette®.
3. Open container, careful not to touch rim or inside of container.
4. Begin to urinate into toilet. Void approximately 20 mL to 25 mL and catch a portion of the rest of the urine in container without stopping stream.
5. Screw cap tightly onto container.
6. Place **labeled** specimen container in biohazard bag.
7. Refrigerate specimen within 1 hour of collection if it cannot be tested immediately. Specimen is stable in refrigerator for 24 hours after collection.
8. If a culture and sensitivity is to be performed on clean catch specimen, immediately transfer appropriate volume to a urine C&S grey-top VACUTAINER®, which contains a preservative that stabilizes any bacteria present in the specimen, following collection. Urine in this tube is stable for 48 hours. If other testing, such as routine urinalysis, is requested on the same urine specimen, in addition to the culture, submit original collection container for all other tests.

Catheterized Specimens: Straight Catheter (Culture, Urinalysis)

1. Discard initial flow of urine from catheter. This portion may contain contaminating organisms acquired as consequence of catheter insertion.
2. Collect a sample of the mid- or later-flow of urine into a sterile container.

3. Place **labeled** specimen container in biohazard bag.
4. Refrigerate specimen within 1 hour of collection if it cannot be tested immediately. Specimen is stable in refrigerator for 24 hours after collection.
5. If a culture and sensitivity is to be performed on the catheterized specimen, immediately transfer appropriate volume to a urine C&S grey-top VACUTAINER®, which contains a preservative that stabilizes any bacteria present in the specimen, following collection. Urine in this tube is stable for 48 hours. If other testing, such as routine urinalysis, is requested on the same urine specimen, in addition to the culture, submit original collection container for all other tests.

Catheterized Specimens: Indwelling Catheter (Culture, Urinalysis)

1. Check to be sure there is no backflow of urine from collection bag into catheter tubing.
2. Cleanse an area of tubing with alcohol. If system has a collection port, cleanse this area.
3. DO NOT send urine obtained from a catheter bag.
4. Puncture tubing at cleansed area with a sterile 18-gauge needle attached to a 10 mL syringe. If the system has a collection port, use the port.
5. Collect 1 mL to 8 mL of flow into syringe. Remove needle and expel urine into a sterile specimen container.
6. Place **labeled** specimen container in biohazard bag.
7. Refrigerate specimen within 1 hour of collection if it cannot be tested immediately. Specimen is stable in refrigerator for 24 hours after collection.
8. If a culture and sensitivity is to be performed on the catheterized specimen, immediately transfer appropriate volume to a urine C&S grey-top VACUTAINER®, which contains a preservative that stabilizes any bacteria present in the specimen, following collection. Urine in this tube is stable for 48 hours. If other testing, such as routine urinalysis, is requested on the same urine specimen, in addition to the culture, submit original collection container for all other tests.

Random Collections: (Urinalysis)

For routine urinalysis and microscopic evaluation, have patient void into a clean container. The **first-morning specimen** is preferred for most tests since it usually is the most concentrated and has a more uniform volume and a lower pH.

Reasons for Rejection:

- Urine specimens submitted without a source (collection method).
- Urine specimens submitted without evidence of refrigeration or preservation and the specimen is > 2 hours old.
- Urine specimens received without the collection date and time.
- Urine specimens that arrive in a leaky container.
- Indwelling Foley catheter urine specimens collected from the catheter bag are not suitable for culture because they contain colonizing flora due to rapid biofilm formation on the catheter surface.
- Foley catheter tips are unacceptable for culture; they are unsuitable for the diagnosis for urinary tract infection.
- First voided (“dirty”) urine specimens submitted for culture will be rejected for testing.