

Urine Culture Collection Best Practices

Date: January 27, 2022

Dear Regional Pathology Services Clients,

To ensure proper collection of urine cultures we would like to offer some tips for clients to reduce contamination and rejection of samples.

Specimen collection and transport best practices:

1. Collect a mid-stream clean catch urine sample (see below for full instructions)
2. Use a sterile collection container
3. Keep urine refrigerated
4. If sample will arrive at the lab > 24 hours after collection transfer specimen to a grey top BD C&S urine preservative tube within 2 hours of collection, **ensuring it is filled to the 3 mL mark.** (see below for full instructions)
5. If sample volume is less than 3 mL send in refrigerated sterile urine cup with a leak-proof lid within 24 hours
6. Package urine samples in a separate biohazard bag from blood tubes and other samples

Things to avoid:

7. Not a mid-stream clean catch urine sample
8. Improper cleansing
9. Leaving unpreserved urine specimen at room temperature for > 2 hours
10. Filling the C&S urine preservative tube under the 3 mL mark

Patient Education

Patient education is a critical component of getting a clean catch urine. Please emphasize that to patients before every collection.

Clean catch urine instructions:

Note: Specimens which yield three or more organisms will be reported as contaminated by superficial or fecal flora and repeat testing suggested.

1. Wash hands well with soap and water.
2. Cleanse genital area with sterile gauze with a front to back motion.
3. Urinate briefly to wash contamination out of urinary opening.
4. Urinate into container.
5. Transfer to urine culture preservative tube if transport to lab is greater than 2 hours.
6. Keep sample refrigerated.

C & S Urine Preservative Tubes

Urine submitted for culture should be placed in a preservative tube if transport to the lab is > 24hours. The BD Vacutainer® Plus C&S Urine Tube **must not contain any less than 3 mL's of urine**. The BD system has a 4 mL draw volume with a **minimum fill line of 3 mL which is indicated on the label**.

The preservative in the tube is a combination of sodium formate, sodium borate and boric acid. The preservative helps to preserve and protect the level of bacteria present at collection, but that same preservative can inhibit growth of pathogenic bacteria if the urine volume is less than 3 mL. The benefit of the BD system is that it allows the urine sample to be held at room temperature for 48 hours before test results are compromised. BD does not recommend using the Culture and Sensitivity preservative tube for routine urinalysis testing. Erroneous results may be seen for several of the chemistry parameters.

Clients requesting culture on a urine sample less than 3 mL should submit urine refrigerated in a sterile, leak-proof, container within 24 hours

