

TECHNICAL BULLETIN

NEW TEST TEST UPDATE

NOTIFICATION DATE: 04/19/2022

EFFECTIVE DATE: 04/19/2022

Urinalysis/Urine Culture Collection Update

On the effective date Northwell Health Laboratories will implement the BD Vacutainer complete urine collection kits for urinalysis/urine culture collection. The benefits of the kit are greater urine specimen stability and more efficient testing, also elimination of contaminated/deteriorated specimens and reduction in staff exposures to the urine specimens.

BD Vacutainer complete urine collection kits

Kit Product No. 364957

Tube Product No. 364979



Sterile Urine Collection Device with an integrated need that transfers urine directly



Cleansing Towelettes



UA preservative tube (red/yellow speckled top)*

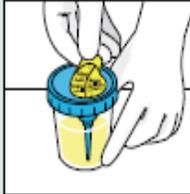
Culture & Sensitivity preservative tube (gray top)*

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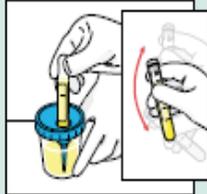


Yellow non preservative tube for microalbumin and/or urine chemistries

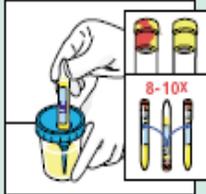
UA Preservative or Plain UA Tube and Culture & Sensitivity (C&S) Preservative Tube



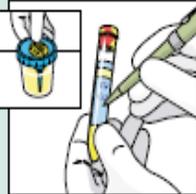
1. Peel back protective sticker to expose rubber-covered cannula.



2. • Push C&S Preservative Tube (gray top) into the integrated transfer port.
• Hold in position until flow stops.
• Remove tube.
• Shake tube vigorously.



3. • Push UA Preservative Tube (cherry red/yellow top) or plain UA Tube (yellow top) into integrated transfer port.
• Hold in position until flow stops.
• Remove tube.
• Invert UA Preservative Tube 8-10 times to mix the sample.

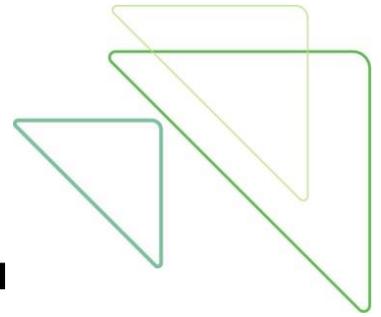


4. • Place protective sticker back over the integrated transfer port.
• Label both filled tubes with patient's name, the date/time of specimen collection and any other data required by your institution.



5. • Remove lid from cup and dispose in a sharps collector.
• Dispose of urine according to your facility's policy.
• Dispose of collection cup as a biohazard.

If you have any questions, please contact Client Services at (516) 719-1100.



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MEMORANDUM

To: Northwell Health Laboratory Outreach Clients
From: Dwayne Breining, MD Executive Director, Northwell Health Laboratories
Date: April 19, 2022
Re: Urinalysis/Urine Collection Update

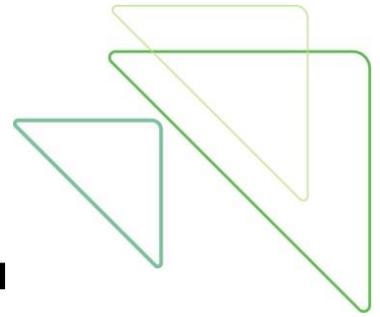
Dear Northwell Health Laboratory Clients,

Effective April 19, 2022, Northwell Health Laboratories will be transitioning to an improved closed urine collection system (please refer to attached technical bulletin) that provides greater urine specimen stability, more efficient testing, and reduction in staff exposures to urine specimens.

Effective May 15, 2022, Northwell Health Laboratories will no longer accept sterile cups for collection of urine for urinalysis and culture.



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Rationale for the Proper Collection of Urine Samples for Urinalysis & Culture

A preventable, pre-analytical issue that plagues the laboratory is due to the improper collection and transport of urine. Sending urine in an improperly closed screw cap cup is the cause of leaky specimens. Secondly, valuable time is wasted by the laboratory staff who have to perform pour-offs. Most importantly, samples sent in the orange cap cups are without preservatives. This causes contamination, deterioration and bacterial overgrowth. Bacteria can double every 20 minutes in an unpreserved sample. Overgrowth can lead to a delay in reporting of results, the need to recollect, re-test, or lead to unnecessary treatment such as with antibiotics.

Urine samples submitted for urinalysis, C&S, microalbumin, etc. **SHOULD ONLY BE SENT IN SPECIMEN TUBES PROVIDED IN THE BD CLOSED SYSTEM KITS THAT WE SUPPLY.**

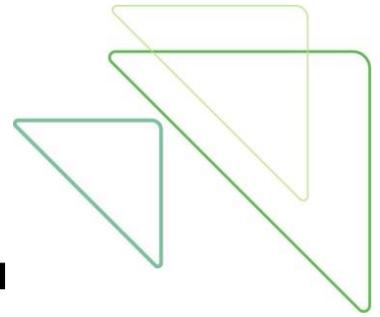
The closed system employs a vacutainer-straw transfer system that eliminates spills, pour offs, leaks, contamination, and exposure of health care workers to specimens. The system ensures quality specimens that can be processed in a timely manner. The BD specimen tubes, contain preservatives, this reduces false positives and ensures accuracy in identifying urinary tract infections. There are two types of tubes. The urinalysis-preserved tube (speckled top) prevents specimen deterioration and bacterial overgrowth. The specimen is stable up to 72 hours without refrigeration. The C&S-preserved tube (gray top) is non-toxic to UTI associated pathogens and remains stable up to 48 hours without refrigeration. Furthermore, by sending in the sample in tubes, it removes the step that requires matching patient ID on tubes to the collection cup.

The Clinical and Laboratory Standards Institute, WHO and CAP have issued guidelines which state that All Urine Specimens without Preservative should be processed within two hours of collection. The BD closed system, utilizing urinalysis and C&S tubes with preservative, extends this to 72 and 48 hours, respectively. The BD closed system kit that we supply includes the following:

1. Blue cap vacutainer cup with an integrated needle that acts as a straw to transfer the urine into the tubes to be analyzed;
2. UA preservative tube (red/yellow speckled top);
3. C&S preservative tube (gray top);
4. Two towelettes
5. For additional testing i.e., urine for microalbumin, and/or urine chemistries a yellow top tube without preservative can be supplied by the laboratory for use. This meets our requirement for proper evaluation of these analytes.
6. After the kits are utilized carefully dispose of the collection apparatus in the appropriate waste container. The blue top sample cup contains a needle, please use caution when handling.

Using the system will ensure that the urine samples are received and processed in the proper manner. The instructions for how to use the kit is presented in the accompanying Bulletin. We have also supplied hand-outs describing how female and male patients should properly collect urine samples for analysis.

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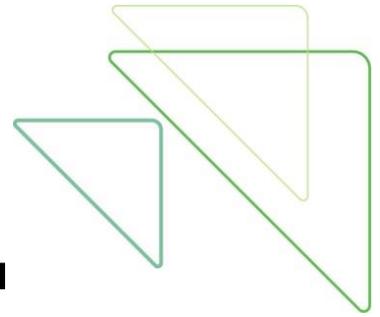
The Proper Collection of a Urine Sample for Routine Urinalysis and/or C&S **FEMALES**



Instructions for collecting a mid-stream clean catch urine for culture utilizing the BD Vacutainer Collection Cup or a sterile urine cup:

1. Do not remove the label from the top of the BD Vacutainer Urine Collection Cup. There is a needle under the label. Wash hands thoroughly with soap and water. Rinse and dry. Unscrew the blue cap top.
2. If you are menstruating, insert a fresh tampon to stop the flow.
3. Open the collection package and unscrew the top. Place the cup on the counter with the “straw” facing upwards. **DO NOT TOUCH INSIDE OF THE CONTAINER, THE LID, OR THE RIM.** You will require two (2) towelettes to perform the cleansing procedure. While seated on the toilet spread the labia majora (outer folds). With the first towelette, wipe both sides of the labia minora (inner fold) using a downward stroke. “Front to back”. Discard this towelette. With the second towelette, cleanse the meatus (center area) with a single downward stroke. “Front to back”. Discard this towelette as well.
4. **DO NOT TOUCH THE INSIDE OF THE CONTAINER, OR THE RIM.** Gently grasp the container.
5. Begin to void urine, letting the first 20-25 ml pass into the toilet. Position the cup in the stream of the urine until the cup is about half to two-thirds full. Finish voiding into the toilet.
6. After obtaining the urine specimen, replace and tighten the blue screw top cap onto the BD Vacutainer Urine Collection Cup being careful to avoid touching the inside of the container or lid.
7. Make sure the container is labeled with your name and date of birth.
8. If being collected in the office, return to the health care worker.
9. If being collected outside the office, bring the sample to the office within 1 hour of collection or store refrigerated for up to 24 hours.
10. The medical staff will then process the sample and arrange for its transport to the laboratory for analysis.

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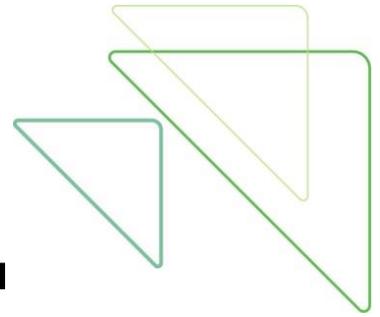
The Proper Collection of a Urine Sample for Routine Urinalysis and/or C&S **MALES**



Instructions for collecting a mid-stream catch urine for urine culture utilizing the BD Vacutainer Urine Collection Cup:

1. Do not remove the label from the top of the BD Vacutainer Urine Collection Cup. There is a needle under the label. Wash hands thoroughly with soap and water. Rinse and dry. Unscrew the blue cap top.
2. Open the collection package and unscrew the top. Place the cap on the counter with the “straw” facing upwards. **DO NOT TOUCH THE INSIDE OF THE CONTAINER, THE LID, OR THE RIM.** You will require two (2) towelettes to perform the cleansing procedure. Retract the foreskin if present. Cleanse the urinary opening of the penis starting at the center and work outward. Repeat the cleansing with the remaining towelette. Discard the two (2) towelettes in the waste basket.
3. **DO NOT TOUCH THE INSIDE OF THE CONTAINER, OR THE RIM.** Gently grasp the container.
4. Begin to void urine, letting the first 20-25 ml pass into the toilet. Position the cup in the stream of urine until the cup is about half to two-thirds full. Finish voiding into the toilet.
5. After obtaining the urine specimen, replace and tighten the blue screw top cap onto the BD Vacutainer Urine Collection Cup being careful to avoid touching the inside of the container or the lid.
6. Make sure the container is labeled with your name and date of birth.
7. If being collected in the office, return the sample to the health care worker.
8. If being collected outside of the office, bring the sample to the office within 1 hour of collection or store refrigerated for up to 24 hours.
9. The medical staff will then process the sample and arrange for its transport to the laboratory for analysis.

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While guidelines exist for urine testing...



- For specimens not analyzed within **2 hours of collection**, preserve the urine specimen using refrigeration (2 °C to 8 °C), or a specifically designed chemical preservative.
- For Microbiological Exam, when specimen cannot be processed immediately, refrigerate specimen at 2 °C to 8 °C for up to 24 hours, or preserve specimen in a tube containing **bacteriostatic preservative**
- The specimen should be submitted for microbiological studies **before** urinalysis
- If refrigerated, **bring the specimen back to room temperature** before proceeding with the analysis
- Laboratories should **ensure specimen integrity** during transport (e.g., pneumatic tube systems)
- CLSI does not encourage nor endorse cutting testing strips, as patient results may not be accurate due to technical reasons.



Basic Laboratory Procedures in Clinical Bacteriology

- All specimens should be processed by the laboratory **within 2 hours of collection**, or be kept refrigerated at 4°C until delivery to the laboratory and processed no longer than 18 hours after collection
- If more than two species of bacteria are present in the urine samples..., report as "Probably contaminated; please submit a fresh, clean-catch specimen".

Guidelines on Standard Operating Procedures for Microbiology

- If immediate processing is not possible, refrigerate the sample at 4 °C, up to a maximum of 48 hours.
- Specimen transport and storage should be done in sterile leak-proof containers.



CAP Check List

- GEN.40108: Are instructions provided for **proper collection** of timed urine specimens?
- GEN.40116: Are documented instructions provided for **proper preservation and storage** of urine when specimens are collected for special tests?
- GEN.40125: For specimens sent to reference laboratories, does the referring laboratory properly follow all **requisition, collection and handling specifications** of the reference laboratory?

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