Urine specimen collection, random

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Introduction

Typically collected as part of a physical examination or at various times during hospitalization, a random urine specimen may be used when a sterile specimen isn't required.[1] A random urine specimen allows screening for urinary and systemic disorders as well as for drug use. A first-voided morning specimen should be used, if possible.[2][3]

Equipment

- Clean bedpan, bedside commode, urinal with cover, or specimen collection hat
- Gloves
- Label
- Laboratory biohazard transport bag
- Soap
- Specimen container with lid
- Washcloth
- Water
- Optional: graduated container, ice, laboratory request forms, other personal protective equipment, perineal care supplies

Preparation of Equipment

Inspect all equipment and supplies. If a product is expired, is defective, or has compromised integrity, remove it from patient use, label it as expired or defective, and report the expiration or defect as directed by your facility.

Implementation

- Gather and prepare the necessary equipment and supplies.
- Review the practitioner's order for the urine specimen.
- Perform hand hygiene.[4][5][6][7][8][9]
- Confirm the patient's identity using at least two patient identifiers.[10]
- Provide privacy.[11][12][13][14]
- Explain the procedure to the patient and family (if appropriate) according to their individual communication and learning needs *to increase their understanding, allay their fears, and enhance cooperation.*[15]
- Instruct a patient on bed rest to void into a clean bedpan or urinal. Instruct an ambulatory patient to void into a clean bedpan or urinal or into a specimen collection hat placed in the bedside commode or in the toilet in the bathroom. Make sure that the urine specimen

doesn't become contaminated with feces or toilet paper. As applicable, note on the specimen whether the patient is menstruating.[1]
- Perform hand hygiene.[4][5][6][7][8][9]
- Put on gloves and, as needed, other personal protective equipment *to comply with standard precautions.*[16][17][18]
- Pour 30 to 60 mL of urine into the specimen container and place the lid securely on the container.
- If you must measure and record the patient's urine output, pour the remaining urine into a graduated container. Otherwise, discard the remaining urine. If you inadvertently spill urine on the outside of the container, clean and dry it *to prevent cross-contamination.*
- Label the specimen container in the presence of the patient *to prevent mislabeling.*[10]

- Place the specimen container in a laboratory biohazard transport bag and send it immediately to the laboratory with the appropriate laboratory request forms (if necessary). If transport to the laboratory may be delayed, place the specimen on ice or refrigerate it.[2][18] *Delayed transport of the specimen at room temperature can alter test results.*
- Assist the patient with perineal care, as needed. (See the "Perineal care of the patient assigned female at birth" or "Perineal care of the patient assigned male at birth" procedure.)
- Offer the patient a washcloth and soap and water to wash the hands.
- Clean the graduated container. Also clean the urinal, bedside commode, or bedpan and return it to its proper storage area.[19]
- Discard used supplies in appropriate receptacles.[18]
- Remove and discard your gloves and, if worn, other personal protective equipment.[18]
- Perform hand hygiene.[4][5][6][7][8][9]
- Document the procedure.[20][21][22][23]

Special Considerations

- Contact the laboratory if specialized urine testing is ordered *to determine the need for any unique instructions for storage or transport.*[3]

Complications

Complications associated with random urine specimen collection may include:

- contamination of the specimen (may alter test results).

Documentation

Documentation associated with random urine specimen collection includes:

- date and time of specimen collection and transport to the laboratory
- specific tests ordered
- specimen characteristics
  - appearance
  - odor
  - color
  - other unusual characteristics
- urine volume noted on the intake and output record (if necessary)
- teaching provided to the patient and family (if applicable)
  - understanding of that teaching
  - follow-up teaching needed.

This procedure has been reviewed by the Academy of Medical-Surgical Nurses.

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Related Procedures

- External urine collection device use, assigned female at birth
- Urine specimen collection for culture and sensitivity, pediatric assigned female at birth
- Urine specimen collection for culture and sensitivity, pediatric assigned male at birth
- Urine specimen collection from a urostomy, ileal conduit, or colon conduit
- Urine specimen collection, pregnant patient
- Urine specimen collection, random, pediatric assigned female at birth
- Urine specimen collection, random, pediatric assigned male at birth

References

(Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions)

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Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions

The following leveling system is adapted from *Evidence-Based practice in nursing & healthcare: A guide to best practice,* Fifth edition, by Bernadette Mazurek Melnyk and Ellen Fineout-Overholt (2023).

Level I	Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs)
Level II	Evidence from well-designed single RCTs (experimental)
Level III	Evidence from well-designed nonrandomized controlled trials (quasi-experimental), systematic reviews of a complete body of evidence, and intervention studies using mixed methods
Level IV	Evidence from well-designed case-control and cohort studies (observational)
Level V	Evidence from systematic reviews of qualitative and descriptive studies
Level VI	Evidence from single descriptive and qualitative studies, evidence-based practice implementation, and quality improvement projects

Level VII	Evidence from expert opinion, expert committee reports, and literature reviews

Data from Gyatt, G., & Rennie D. (2002). Users' guides to the medical literature. American Medical Association; Harris, R. P., et al. (2001). Current methods of the U.S. Preventative Services Task Force: A review of the process. American Journal of Preventative Medicine, 20, 21-35.