

## Urine

### 1. General guidelines for Collection of Urine Specimens

- a. Do not collect urine from a bedpan or urinal.
- b. Thoroughly clean the urethral opening (and vaginal vestibule in females) prior to collection procedures to ensure that the specimen is not contaminated with microorganisms that colonize this area.
- c. Use soap for cleaning the urethral area as disinfectants may be inhibitory to the growth of microorganisms.
- d. Use a urine transport tube for routine **bacterial culture**.
- e. If **volume is less than 1.0 ML** use a sterile cup or tube and refrigerate the specimen if possible.
- f. For **viral culture** collect urine in a sterile cup or tube. Do not use a urine transport tube.
- g. For **Mycobacteria or fungal culture**, send 20-40 ml of urine in clean cup.
- g. Any urine collection procedure involving catheterization must be performed using aseptic technique to avoid introducing microorganisms.
- h. Do not submit 24-h urine collections for culture.

### 2. Collection techniques for Urine Specimens

- a. Clean-catch urine specimens (female)
  1. The person obtaining the urine specimen should wash hands with soap and water, rinse, and dry. If the patient is collecting the specimen, she should be given detailed instructions, including diagrams or a pictorial display.
  2. Cleanse the urethral opening and vaginal vestibule area with soapy water or clean gauze pads soaked with liquid soap.
  3. Rinse the area well with water or wet gauze wipes.
  4. Hold labia apart during voiding.
  5. Allow a few milliliters of urine to pass. (Do not stop the flow of urine.)
  6. Collect the midstream portion of urine in a sterile container.
  7. Transfer urine to a urine transport tube.
- b. Clean-catch urine specimens (male)
  1. The person obtaining the urine should wash hands with soap and water, rinse, and dry. If the patient is collecting the specimen, he should be given detailed instructions, or a pictorial display.
  2. Cleanse the penis, retract the foreskin (if not circumcised), and wash with soapy water.
  3. Rinse the area well with sterile water.
  4. Keeping foreskin retracted (to minimize contamination with skin flora), allow a few milliliters of urine to pass. (Do not stop the flow or urine.)

5. Collect the midstream portion of urine in a sterile container.
6. Transfer urine to a urine transport tube.

**c. Ileal conduit urine**

1. Remove the external urinary appliance, and discard the urine within the appliance.
2. Gently swab and clean the stomal opening with 70% alcohol pad and then with a 10% solution of povidone-iodine.
3. Using sterile technique, insert a catheter into the stoma.
4. Catheterize the ileal conduit to a depth beyond the fascia level.
5. Collect the urine drained into a sterile container.

**d. Straight catheter urine (in/out catheter urine specimens)**

In/out catheter urine specimens are useful when clean-catch urines cannot be obtained or when results from clean-catch urine specimens are equivocal and a diagnosis is critical.

1. Clean the patient's urethral opening (and in females, the vaginal vestibule) with soap, and carefully rinse the area with water.
2. Using sterile technique, pass a catheter into the bladder.
3. Collect the initial 15 to 30 ml of urine, and discard it from the mouth of the catheter.
4. Collect a sample from the mid- or later flow of urine in a sterile container.

**e. Indwelling catheter urine**

Indwelling catheters are placed in patients who are unable to pass urine.

1. Clean the catheter collection port with 70% alcohol wipe.
2. Using sterile technique, puncture the collection port with a needle attached to a syringe. (*Note: Do not collect urine from collection bag.*)
3. Aspirate the urine, and place it in a sterile container.