

# Additional Collection Information

## **BONE MARROW**

Bone marrow samples for immunophenotyping studies and cytogenetics should be collected between 6:00 a.m. Monday and 3:00 p.m. Friday. The reference laboratory performing this testing must receive the sample within 72 hours of collection. Physicians needing technical assistance with bone marrow collection can call the Hematology Department at 630.933.2060, Monday through Friday, 8:00 a.m. to 8:00 p.m., and Saturday, 8:00 a.m. to 3:00 p.m. If the physician performing the collection procedure will not be assisted by the laboratory, call the Hematology Department for appropriate collection containers at 630.933.2060.

## **CSF SPECIMEN REQUIREMENTS**

The following guidelines should be used in deciding which tubes/specimens should be used for specific laboratory tests from a spinal tap.

### **CSF Tube #1:**

Chemistry/Serology Testing

Although this specimen is most prone to blood contamination from a traumatic tap, it can be used for chemistry and serology testing with the understanding that some tests (i.e., proteins) are affected by the blood. Tube #2 or #3 may be used for chemistry/serology tests in the absence of other tests.

### **CSF Tube #2:**

Bacteriology Testing

This specimen is preferable for bacteriology testing over Tube #1 because contamination from skin flora is minimized. Tube #3 may be used in the absence of hematology tests.

### **CSF Tube #3:**

Hematology Testing

This specimen is preferable for cell counts over Tubes #1 and #2 because the potential for false positive from a traumatic tap is minimized.

## **PKU SPECIMEN COLLECTIONS**

Illinois law provides for comprehensive screening of newborns for congenital metabolic diseases: phenylketonuria (PKU), 21-hydroxylase, sickle cell disease and trait, primary hypothyroidism, galactosemia, congenital adrenal hyperplasia and biotinidase deficiency. All infants must have a valid specimen collected and submitted for these tests. A valid specimen is one that is collected between 24 hours after birth and the fifth day of life (preferably before the infant is discharged).

If the first specimen is collected on the infant prior to 24 hours of age, a second specimen must be collected by the fifth day of life. Premature infants or those requiring parenteral feeding should be collected after their condition stabilizes (seventh day). The specimen must be submitted within 72 hours of collection and examined within five days of receipt.

The attending physician has primary responsibility for the test; however, he or she may delegate to the hospital. If follow-up is needed, the state notifies the physician who is responsible for obtaining another specimen. The testing is performed by the Metabolic Diseases Section, Division of Laboratories, Illinois Department of Public Health, Chicago, Illinois.

### **PKU Specimen Collection Procedure:**

- 1 Follow procedure for infant capillary puncture.
- 2 Wipe away first blood drop with gauze pad. Allow another large blood drop to form.
- 3 Lightly touch the PKU filter paper to a large drop of blood. Allow the blood to soak through and completely fill the circle. Apply blood to one side of the filter paper only.
- 4 To enhance blood flow, very gentle, intermittent pressure may be applied to the area surrounding the puncture site.
- 5 If a capillary tube is used to collect the blood, do not scratch the surface of the filter paper. The circle must be completely filled, but not over saturated.
- 6 Fill in all four circles on the filter paper card with blood. Another site should be chosen for puncture if blood flow diminishes. In cases where all four circles cannot be filled, it is acceptable to completely fill at least two circles and submit the specimen.
- 7 Record the date and time of collection, as well as patient demographics on the card. Also document the collection date and time on the infant's chart.

**8** Allow the blood spots to dry completely on a clean, flat, non-absorbent surface.

**9** When the circles are completely dry, transport the specimen to the laboratory in a biohazard bag.

Document whether the specimen is valid (according to the timetable listed above) on the infant's chart. If the specimen collected is potentially invalid, arrange with the parents to have a second specimen collected. The baby must return for repeat testing between 24 hours and the fifth day of life.

If a repeat test is required, the parent(s) or guardian(s) may bring the baby to the CDH outpatient laboratory or any CDH satellite facility to have another test sample collected. Written or computer orders are required for all outpatient specimen collections.

### **URINALYSIS SPECIMEN COLLECTIONS**

A clean-catch urine sample is necessary to assure accurate results. By following these directions, it is possible to collect a sample free from contaminating matter that may be present on external surfaces of genitalia. "Patient Specimen Collection Instruction Sheets" are provided at the end of this section and may be given to patients if the specimen is to be collected at home.

#### **Females**

Instruct patient to:

- 1** If menstruating, insert a fresh tampon to halt flow.
- 2** Open the sterile specimen collection cup without touching the rim, inside of cup or inner surface of the cup lid.
- 3** Wash hands with soap and water; dry hands.
- 4** Separate the skin fold around the urinary opening with one hand and keep apart until finished collecting the sample.
- 5** Using a sterile moist towelette (or cotton balls soaked in soap and water) wash the urinary opening and surrounding tissue, front to back. Rinse with clear water.
- 6** Begin urinating into the toilet, holding skin folds apart with your fingers.
- 7** After the urine stream is well established, and without interrupting the urine flow, move the sterile container into the path of the stream to "catch" the urine.
- 8** Collect the urine until the container is approximately half full (or until flow of urine decreases substantially) and then finish voiding into toilet.

#### **Males**

Instruct patient to:

- 1** Open the sterile specimen collection cup without touching the rim, inside of cup or inner surface of the cup lid.
- 2** Wash hands with soap and water; dry hands.
- 3** Retract the foreskin and thoroughly wash the end of the penis using a sterile moist towelette or washcloth soaked in soapy water. Rinse with clear water.
- 4** Begin urinating into the toilet.
- 5** After the urine stream is well established, and without interrupting the urine flow, move the sterile container into the path of the stream to "catch" the urine.
- 6** Collect the urine until the container is approximately half full (or until flow of urine decreases substantially) and then finish voiding into toilet.

#### **Infant or Pediatric Patient - Instruct Parent,**

##### **Caregiver or Guardian to:**

- 1** Wash hands with soap and water; dry hands.
- 2** Remove diaper and wash area with soap and water, removing all powder or ointment.
- 3** Rinse area with clear water and dry with clean towel.
- 4** Apply sterile urine collection bag.
- 5** Reapply diaper, leaving bag unfolded and pulled through to the outside of diaper.
- 6** After patient voids, remove bag and pour urine into sterile urine cup. Tightly replace lid.

#### **General**

- 1** Do not allow any part of the body to touch the rim or inside of the container.
- 2** Do not completely fill container. Testing can be performed on a small urine sample.
- 3** If the specimen is collected at home, label the container with your name, date and time of collection, and refrigerate immediately.

## TIMED URINE COLLECTIONS

Many urine chemistry tests require a 24-hour or other timed specimen collection. Contact customer service at 630.933.2633 prior to a 24-hour urine collection to obtain the proper containers and preservative necessary for the testing or refer to the specimen requirements in the test listing section of this manual. If a preservative is required, it is important that the preservative be in the urine collection container at the start of collection. Please note any medications the patient is receiving at the time of collection in the test order comment field or on the HealthLab requisition.

### Equipment:

- 24-hour urine container
  - Ice bucket and ice
  - Funnel, commode pan, urinal, bedpan or graduate as needed
- 1 Depending on the test, the container may contain a preservative. The patient should be cautioned that the preservative may be toxic and caustic and that they should not spill or discard the preservative.
  - 2 Each specimen container is to be labeled with the preservative that it contains.
  - 3 Make sure that the container(s) are properly labeled with the patient's name and the date and time of collection.
  - 4 On the day of collection, the first morning urine should be discarded before saving samples. Note the time of day of the void and then begin the collection of all urine samples.
  - 5 Collect all urine for the appropriate time interval. The last sample collected and saved should be at the end of the time interval. For 24-hour collections, include the first morning urine void on the second day as the final collection specimen.
  - 6 If no preservative is placed in the container, keep container on ice at all times or refrigerate during collections. Specimens with preservative can remain at room temperature.
  - 7 If a Foley is used, empty the Foley bag at least every four hours.
  - 8 If any urine is discarded during the 24-hour period, contact the laboratory for instructions.
  - 9 Label and transport to the laboratory according to procedure. If the label does not include age and gender of the patient, note this when placing the order.
  - 10 Send the entire collection to the laboratory. Indicate on each container if more than one container was required for the collection (example: 1 of 2, 2 of 2, etc).

## URINE DRUG SCREEN - COLLECTION AND PROCESSING

### Performed at Central DuPage Hospital Outpatient Lab Only.

For results to be admissible as evidence in court, chain-of-custody procedures for drug screening of urine must be followed. These procedures include identification by photo ID and are best performed at the hospital laboratory or satellite laboratories. The donor must remove any unnecessary outer garments, which might conceal substances used to alter a specimen. Bluing agent is maintained in the toilet bowl and the water shut off valve is turned on. The temperature of the urine specimen must be checked and recorded on the chain-of-custody.

From the point of collection, the specimen must be visible to the donor throughout processing and packaging until a tamper-evident label/tape is in place. The donor must be present until all chain of custody forms are completed. Any medications recently taken by the donor are noted on the forms. The donor then signs the forms and specimen container label to verify that these procedures have been followed.

As each person handles the specimen, he/she prints and signs his/her name on the chain-of-custody form to verify that the tamper-proof seal remains intact. Positive results are subjected to confirmation testing.