|  |  |
| --- | --- |
| **Prepared by:** | Nancy J. Konopka, MS, MT(ASCP) |
| **Supervisor Approval:** |  |
| **Administrative Director Approval:** |  |
| **Medical Director Approval:** | **I have reviewed this document and approve it for use.** |
| . |

**PURPOSE:**

This document provides guidelines for processing a urine specimen after collection, including one with multiple test orders. Guidelines include instructions for how to

* Review the urine test labels for multiple orders
* Label the primary collection container
* Determine the volume collected
* Determine when a specimen with multiple orders
  + is sufficient to divide at the collection site OR
  + is insufficient to divide (must be shared)
* Properly label secondary containers/tubes
* Aliquot a specimen into one or more secondary containers when the volume is sufficient
* Use a SHARED SPECIMEN label to indicate when a multiple-order specimen must be “shared” (is insufficient for secondary containers)

**PRINCIPLE:**

Because providers frequently order multiple tests on a single urine specimen, staff must be able to determine if and how to divide (aliquot) a specimen. When the volume is insufficient for division, a specimen is considered to be a “shared” specimen and is flagged with a SHARED SPECIMEN label.

Although there are instances when a specimen must be shared between departments this practice has historically carried with it the risk of missed tests. For this reason, every effort should be made to identify and divide specimens of sufficient volume.

**SUPPLIES:**

* Urine C&S collection kit or the individual components
* Sterile 4.5 oz screw-cap specimen cup with integral sampling device
* Gray top vacuum tube with lyophilized urine maintenance formula
* Yellow top vacuum tube
* Set of 3 towelettes
* Plain red top vacuum tubes
* Orange SHARED SPECIMEN labels

**PROCEDURE**

Collecting and processing of a urine specimen may involve staff in three areas of the laboratory. This procedure is comprised of three parts corresponding to those areas. Staff should refer to the appropriate part of the procedure for their specific role in specimen handling. For details on specimen COLLECTION refer PHLB 5010.0P.

**PART 1**

Specimen collection area: handling urine specimens after collection

**Part 2**

Central receiving area: dividing and distributing urine specimens

**Part 3**

Urinalysis workbench: dividing and distributing shared urine specimens

**PART 1**

**SPECIMEN COLLECTION AREA: Handling Urine Specimens after Collection**

|  |  |
| --- | --- |
| Step | Action |
| 1 | **Labeling the primary collection cup and aliquot tubes and cups**   * Label the primary urine collection container with an LIS-generated label, typically the top left-hand label from the first test ordered. * Label all aliquot containers with the appropriate bar-code label. * Refer to PHLB 0050.0 P for details on labeling containers. |
| 2 | **Instructing the patient**  Instruct the patient on proper specimen collection. Refer to PHLB 5010.0 P for details. |
| 3  3 ctd | **Determining specimen volume and tubes/containers needed**  After collection   * Review the urine test labels for multiple orders. * Determine the specimen volume.   Based on the urine volume and the tests ordered, either transfer aliquots of specimen to secondary tubes or cups or keep the entire specimen in the collection cup. See Steps 6 to 8 for instructions on   * transferring the specimen into secondary containers and * labeling a “shared specimen” when volume is insufficient for transfer.   **Refer to NEXT PAGE for table with specific guidelines for secondary urine tubes/containers.**   |  |  |  | | --- | --- | --- | | **Test Requirements** | | | | **Test** | **Container** | **Minimum volume needed** | | UAS, UAC, UAM | Yellow top tube | 10 mL | | Urine culture | Grey top tube | 5 mL | | Microalbumin | Red top tube | 5 mL | | Urine chemistries (creatinine, Na, K, osmo) | Red top tube | 5 mL | | Cytology | Original cup | 10 mL |   **Understanding “dead volume”**  When using a vacuum tube to remove specimen from a urine containe, keep in mind that the dead volume is 10 mL, meaning that the straw in the cup lid will not reach the last 10 mL of urine. Urine will remain in the bottom of the cup.  **Labeling tubes and containers**  Label all aliquot containers with the appropriate bar-code label. Refer to  PHLB 0050.0 P for details. |
| 4 | **Deciding to divide or “share” the specimen**  After determining the TOTAL volume needed (Step 4), follow the guidelines below.   * When **one test** is ordered, go to STEP 5. * When **more than one test** is ordered, choose from the following: * **>40 mL** (greater than 40 mL) - go to Step 7. * **between 15 and 40 mL -** go to Step 8. * **< 15 mL** (less than 15 mL)- go to Step 9. |
| 5 | **One test ordered**   * **>15 mL** (greater than 15 mL): aliquot the specimen to the sample tube; when cytology test is ordered, leave the specimen in the cup. * **< 15 mL** (less than 15 mL): leave specimen in cup. |
| 6 | **More than one test ordered, > 40 mL (greater than 40 mL) collected**   * There is sufficient specimen to divide the specimen into all tubes or cups needed. To determine which tubes/cups to use, refer to the guidelines in STEP 4. |
| 7 | **More than one test ordered, between 15 and 40 mL collected**   * Refer to the guidelines in STEP 4 to determine the total volume of urine needed to fill the tubes/cups.Keep in mind that, when using the vacuum tubes, at least 10 mL will remain in the bottom of the cup after sampling. * If the **volume is sufficient**, divide the specimen into tubes according to the guidelines in STEP 4. * If the **volume is not sufficient**, write all test names on a SHARED SPECIMEN label and affix it to the lid of the cup. |
| 8 | **More than one test ordered, <15 mL (less than 15 mL) are collected**   * Write all test names on a SHARED SPECIMEN label and affix it to the **LID** of the cup. |

**PART 2**

**CENTRAL RECEIVING AREA: Dividing and Distributing Urine Specimens**

|  |  |
| --- | --- |
| Step | Action |
| Multiple tests may be ordered on a single urine specimen. Undivided outpatient urine specimens are identified with a SHARED SPECIMEN label and division is typically performed at the Urinalysis bench. The quantity of multi-test inpatient and Emergency Department (ED) urine specimens is evaluated in the Central Receiving Area. When the quantity is sufficient these specimens are divided in Central Receiving. When the quantity is insufficient for division, these specimens are identified with a SHARED SPECIMEN label and division is performed at the Urinalysis bench. | |
| 1 | **Inpatient/ED urine specimens**   * Inpatient/ED urine specimens may be divided or marked as shared in Central Receiving. * Dividing vs sharing a specimen   Refer to PART 1, Steps 3-8 when deciding to divide or “share” the specimen   * When dividing * Appropriately label the aliquot tubes and divide the specimen. * When sharing * If the volume is not sufficient for division, write all test names on a SHARED SPECIMEN label and affix it to the lid of the cup. |
| 2 | **Distributing urine specimens and labels**  Distribute all primary and aliquot labels to the areas listed in the table below.  When aliquot labels print before the arrival of specimens, hold them in the Specimen Processing Area and distribute them WITH the specimens.   |  |  |  |  | | --- | --- | --- | --- | | **Urine Test** | **Container** | **Shift/delivery location** | | | Shared | Cup | All | Urinalysis | | UAS, UAC, UAM | Cup or yellow top tube with grey top tube | All | Urinalysis | | Urine culture | Grey top tube | All | Micro basket at CDO | | Microalbumin | Red top tube | All | Chemistry | | Urine chemistries (creat, Na, K, osmo) | Red top tube | All | Chemistry | | Cytology | Original cup | All | Basket in “send-out” refrigerator | |

**PART 3**

**URINALYSIS WORKBENCH: Dividing and Distributing Shared Urine Specimens**

|  |  |
| --- | --- |
| Step | Action |
| Multiple tests may be ordered on a single urine specimen. When quantity is insufficient for division, a SHARED specimen will be divided at the Urinalysis workbench. When dividing these specimens, begin by using the guidelines in Steps 3-8 of the section above. As needed, refer to additional guidelines below. If the volume of specimen is insufficient to perform all tests, contact the ordering provider for priority-of-testing guidelines. | |
| 1 | **Dividing urine specimens**  Obtain LIS-labels for tests ordered. Label appropriate aliquot tubes or other containers.  Aliquot the minimum volume for each tests according to the guidelines below. Once aliquots are removed, cross the test names off of the SHARED label.   |  |  |  | | --- | --- | --- | | **TESTING Guidelines for secondary urine tubes/containers** | | | | **Test** | **Container** | **Minimum volume needed** | | UAS, UAC, UAM | Yellow top tube | iChem Velocity: 4 mL  iQ 200: 4 mL (use specimen from Velocity)  iChem 100: enough to moisten a biochemical strip | | Urine culture | Grey top tube or  sterile cup | 5 mL in tube or  Few drops in cup | | Urine chemistries (creat, microalb, Na, K, osmo) | Red top tube (yellow is acceptable) | 1 mL | | Cytology | Original cup | 10 mL; if less is available, conserve as much as possible when aliquotting for other tests | |
| 2 | **Distributing urine specimens**  Follow the guidelines in PART 2, Step 2. |

**Document History**

|  |  |  |
| --- | --- | --- |
| Date of Origination and Document Control Number |  |  |
| Revision History/ Biannual Review: |  |  |
| Revision History/ Biannual Review: |  |  |
| Revision History/ Biannual Review: |  |  |
| Revision History/ Biannual Review: |  |  |
| Revision History/ Biannual Review: |  |  |

|  |  |
| --- | --- |
| **Docushare Keywords:** | **User Read Acknowledgement via**  HealthStream  E-Mail  Other NA: no change to content |
|  |