General Laboratory Specimen Collection Guidelines

The Laboratory will perform tests only at the written or electronic request of an authorized individual such as a physician or other practitioner who is approved by the Pennsylvania State Department of Health to order clinical laboratory tests.

Specimens should be collected in accordance with the instructions in the Laboratory Test Services Guide (http://uphsnet.uphs.upenn.edu/home/) that describes type of container to be used, volume of specimen required and special handling requirements related to patient preparation, specimen stability and transport.

Specimens must be labeled with patient name and medical record number.

Specimens that are not appropriately labeled will be handled according to HUP policy 1-16-9. The laboratory requisition must have patient identification information that matches the patient identification information on the specimen and the requisition must contain all appropriate and required information (i.e. date/time of collection, identity of collector, ICD 9 codes for outpatients, physician name, and contact phone number for critical results).

Proper tube labeling with Cerner barcode labels

- Use the medium barcode label on the tube or container
- Place the medium label- vertically- with the patient name to the right, place directly under the cap, barcode label must be straight and leave visible window to see blood place one label per tube
- Do not place the label over the cap wrapped around the tube, upside down, twisted, wrinkled, wrapped, around multiple, tubes or too low
- Per NPSG -2 acceptable identifiers…. NAME and DOB or MRN are acceptable
- Tubes are to be labeled in the presence of the patient
- Verify the correct date and time on the label – Use current labels. Never use a label from another date and time
- Before placing the medium barcode labels on the tubes: Check that the tube label corresponds to the appropriate tube type: CBC label is placed on a Lav top tube not a gold top tube
Remember the 3 C’s of proper tube/container labeling

- Correct patient
- Correct label for the desired test, date and time
- Correct label is placed on the correct tube type
Proper Order of drawing tubes

BD Vacutainer® Order of Draw for Multiple Tube Collections

Designed for Your Safety

Reflects change in NCCLS recommended Order of Draw (NCCLS H3-A5, Vol 23, No 32, 8.10.2)

Closure Color | Collection Tube | Mix by Inverting
--- | --- | ---
BG | **BD Vacutainer® Blood Collection Tubes (glass or plastic)**
- | Blood Cultures - SPS | 8 to 10 times
- | Citrate Tube* | 3 to 4 times
- | BD Vacutainer® SST™ Gel Separator Tube | 5 times
- | Serum Tube (glass or plastic) | 5 times (plastic)
- | Heparin Tube | none (glass)
- | BD Vacutainer® PST™ Gel Separator Tube With Heparin | 8 to 10 times
- | EDTA Tube | 8 to 10 times
- | Fluoride (glucose) Tube | 8 to 10 times

*When using a winged blood collection set for venipuncture and a coagulation (citrate) tube is the first specimen tube to be drawn, a discard tube should be drawn first. The discard tube must be used to fill the blood collection set tubing’s "dead space" with blood but the discard tube does not need to be completely filled. This important step will ensure maintenance of the proper blood-to-additive ratio of the blood specimen. The discard tube should be a nonadditive or coagulation tube.

Note: Always follow your facility’s protocol for order of draw

Handle all biologic samples and blood collection “sharps” (tubes, needles, luer adapters and blood collection sets) according to the policies and procedures of your facility. Obtain appropriate medical attention in the event of any exposure to biologic samples (for example, through a puncture injury) since they may transmit viral hepatitis, HIV (AIDS), or other infectious diseases. Utilize any built-in used needle protector if the blood collection device provides one. BD does not recommend reusing used needles, but the policies and procedures of your facility may differ and must always be followed. Discard any blood collection “sharps” in biohazard containers approved for their disposal.

BD Global Technical Services
1.800.631.0174

BD Customer Service
1.888.237.2762
www.bd.com/vacutainer

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# Blood Tubes

<table>
<thead>
<tr>
<th>Tube Type and color of tube cap</th>
<th>Common Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>Blood Cultures</td>
</tr>
<tr>
<td>Blue</td>
<td>PT, PTT, Fibrinogen</td>
</tr>
<tr>
<td>Gold-Serum Separator</td>
<td>Most Chemistry tests</td>
</tr>
<tr>
<td>Plain Red Top</td>
<td>Drug levels</td>
</tr>
<tr>
<td>Green</td>
<td>Vitamin B1, G6PD</td>
</tr>
<tr>
<td>Pink</td>
<td>Type and Screen</td>
</tr>
<tr>
<td>Lavender</td>
<td>CBC, HbA1c, Ammonia</td>
</tr>
<tr>
<td>Grey top- for blood samples*</td>
<td>Lactate</td>
</tr>
</tbody>
</table>

## Urine Tubes

<table>
<thead>
<tr>
<th>Red &amp; Yellow Speckled Top Conical Tubes</th>
<th>Urine Routine Urinalysis (UA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Clear Urine Chemistry tubes (No Additive)</td>
<td>Urine Drug Level (2 Cerner Labels print)</td>
</tr>
<tr>
<td>Grey top - for Urine samples*</td>
<td>Urine - Culture</td>
</tr>
</tbody>
</table>

For a complete list of tests and tube requirements refer to the Lab Test Services Guide found at the UPHS Intranet - [http://uphsnet.uphs.upenn.edu/home/](http://uphsnet.uphs.upenn.edu/home/)

- When in doubt: look on the Cerner label for the tube type
- Place the correct Cerner label on the correct tube type ie: CBC label place on the Lavender top tube and Routine Urinalysis (UA) label on the Yellow & Red speckled top conical tube.
Specimen containers should be placed in a sealed plastic bag and transported to the laboratory as soon as possible after collection. Every effort should be made to ensure that the specimen container is not leaking (i.e., urine or body fluid container lids have been securely placed on containers to prevent leaking during transit). Specimens received in the lab that are leaking may be subject to cancellation.

Specimen containers transported to the laboratory from within the hospital-based clinics/outpatient service areas via the hospital transport service staff -- may be transported using a sealed plastic bag. Specimens sent to the laboratory using the pneumatic tube system should be sent in a sealed fluid tight double plastic bag and placed within the foam inserts located in the pneumatic tube carrier. Do not send specimens in a carrier that does not have the foam inserts.

Specimen containers sent to the laboratory from sites outside the hospital via an outside courier must be transported according to Federal, State and local regulations regarding packaging and shipping such specimens.

The laboratory will not accept specimens contained in syringes with needles attached, nor should the requesting physician be contacted and informed that the specimen will be rejected. If the specimen is irreplaceable, and it would be potentially harmful to the patient to not process the specimen, the ordering physician will be given the opportunity to collect the specimen from the lab and to return the syringe capped with a sterile cap or stopcock.

If the laboratory receives a specimen container that is leaking – that specimen may be rejected for testing. If a specimen container is broken – the specimen will be rejected and recollection of the specimen will be required. The laboratory staff will notify the patient care service area of the unacceptable condition of the specimen and the need for recollection.

Specimens that are received in a condition that does not meet specific handling requirements – i.e., specimen received at room temperature when specimen should have been frozen; insufficient quantity of specimen; incorrect specimen container, etc – those specimens will be rejected for analysis. The location that sent the unacceptable specimen will be notified of the unacceptable status.

Specimen Collection Boxes that are used by Off-site Practices must be locked at all times. These boxes must be kept in the specified location within the Practice so that the Courier will have easy access and therefore ensure timely pick-up. If it is necessary to move a box to a new location within the Practice, please notify the dispatcher at Priority Express, so that their database can be updated with this new information. Specimens placed in these boxes must be stored in a manner that ensures the integrity of the specimen is maintained. If a specimen collection box needs to be replaced or there is any problem related to these boxes please contact Priority Express at 610-364-3300.

Any questions about specimen collection or specimen transport requirements should be directed to the laboratory at 1-800-PENNLAB (1-800-736-6522) or refer to the rolodex on the intranet home page. The link on the intranet is called “Lab Test Services Guide” under the Systems section. Weblink: http://uphsnet.uphs.upenn.edu/home

Reviewed and approved by Irving Nachamkin, DrPH, MPH, Interim Vice Chair, Division of Laboratory Medicine, Updated 5-13-2011