General Specimen Collection Guidelines

The accuracy of any test procedure is dependent on the quality of the specimen. Quality of the specimen is dependent on how and when it was collected, the care given to its preservation and transportation to the laboratory.

Safety

It is the responsibility of the submitter to ensure that their specimens are not a hazard to transport or laboratory personnel. To protect the safety of others, the following precautions must be followed when collecting specimens:

- During specimen collection wear appropriate personal protective equipment.
- Use leak-proof containers and plastic zip-lock transport bags that have a separate outside compartment for the test requisition form.
- Make sure screw-cap lids are fastened evenly and securely. Insure that no label material is caught in the threads of the lid.
- Do not transport leaking containers or use containers that do not close securely – these compromise test results and are a hazard to couriers and laboratory personnel.
- To protect the safety of others, take care not to contaminate the outside of the specimen container or the laboratory requisition form.

Courier Services

Our laboratory offers a courier service! Contact us at (916) 874-9231 for more information on courier days and times.

Specimen Labeling

Proper identification of every patient sample is as important as the quality of the sample and the precision of the laboratory. We will not test unlabeled or mislabeled specimens. Please follow these guidelines when collecting specimens:

- Clearly label the specimen container with the patient's name, date of collection, and Medical Record (MR) number.
- **CLIA / CAP regulations require two (2) unique identifiers for each patient, either a name and birth date, or name and Medical Record number, on the specimen container and requisition form.**
- Check with the patient to make sure that you are collecting/drawing the right person.

- Verify the patient's name with the test requisition and container label after collection.

Specimen Collection

The patient specimen or collection site must be carefully selected so that it represents the active disease process, and is not overly contaminated with indigenous microbial flora. Please refer to the **Alphabetical List of Tests & Collection Manual** for specimen and test specific information.

- Select the correct site and use the proper collection techniques.
- Collect the proper volume of specimen for the test; be aware that some tests are compromised by an excess of specimen.
- Collect specimens in the proper container; test results can be affected by preservatives and anticoagulants.

Specimens for direct detection of an infectious agent by DNA or fluorescent antibody staining:

- DNA tests and some direct fluorescent stains may remain positive for 3 or 4 weeks after infectious organisms are no longer viable.
- Specimens collected for DNA or blood lead testing must be collected and handled carefully because they are easily contaminated by the environment or by other specimens. Urine samples collected for DNA-based tests must not be used for dipstick analysis or contaminated in any other way.

Specimens for the isolation of an infectious agent:

- Obtain specimens as early as possible in the illness and before antibiotic / antiviral treatment is initiated.
- If treatment has already been initiated, obtain specimens at least 48 hours after completion of therapy.
- Transport the specimen as quickly as possible to the laboratory, under the recommended transport conditions.

Specimens for serologic assays:

- Collect specimens in a sterile serum-separator Vacutainer (tiger-top tube).
- Allow the blood to clot at least 30 minutes before refrigerating.
- Do not allow whole blood specimens to freeze; this causes blood cells to lyse (hemolysis) and makes the specimen unsatisfactory for testing.
- Blood should not be collected immediately after the patient has eaten, because lipemic blood interferes with many tests.

- Normally, antibodies are not formed until about 2 weeks after the onset of a disease. A rise in antibody titer between two specimens taken at different times is the most reliable diagnostic indicator. The first specimen should be collected within seven days of disease onset and the second specimen should be collected two to three weeks later.

Storage and Transport

Proper transport and prompt delivery of specimens to the laboratory are critical for obtaining useful laboratory test results. Use the following general guidelines when transporting specimens to the laboratory. Please refer to Alphabetical List of Tests, in this guide for specimen and test specific information.

- In general, specimens for bacterial culture should not be stored for more than 24 hours before transport to the laboratory
- Specimens tested for *Shigella* sp., *Neisseria* sp. and *Haemophilus influenzae* (which are sensitive to cold temperatures) should not be refrigerated.
- Never refrigerate genital, eye, internal ear specimens or CSF.
- Store sputum, bronchial wash, urine, and external ear specimens at 4°C.
- Store GC pill plates inoculated for *Neisseria gonorrhea* testing at 25°C.
- If clinic personnel transport specimens, specimens must be transported according to the Department of Transportation regulations.
- Urines that will be held >24 hours before transport should be collected in urine preservative (UPP) containers; contact the laboratory for more information.

Specimen rejection

Situations that could seriously compromise the validity of test results will result in specimen rejection. Some of the situations that can result in specimen rejection are:

- Unlabeled or mislabeled specimen.
- Specimen too old or in poor condition (i.e. hemolysed, lipemic)
- Specimen submitted on grossly outdated media or transport kits.
- No specimen received with test requisition form.
- Anaerobic culture request from aerobic transport.
- Specimen leaked during transport.

Deliveries to the Laboratory

Specimens are accepted Monday through Friday, 8:00 AM to 4:30 PM, **EXCEPT** Quantiferon specimens, which cannot be accepted on Fridays.