Specimen Collection and Preparation

General Recommendations

Laboratory test results are dependent on the quality of the specimen submitted. Careful adherence to collection and preparation guidelines is a necessary prerequisite to assurance of quality test results.

If you have questions regarding specimen requirements for a particular test, please call 320-762-6161 for complete instructions before proceeding.

Each specimen submitted must be clearly labeled with at least two of the following identifiers: Full Name (First and Last), Date of Birth, MRN or SSN to ensure proper patient identification. A completed Alomere Health Laboratory Services requisition must accompany each specimen or the order can be placed via electronic interface if applicable. It is important to include patient's name (first and last), date of birth, collection date and time, physician's name, diagnosis information, and source of specimen when applicable. For billing purposes, include the patient's address, Social Security number, Medicare, Medicaid, or insurance number, diagnosis, and physician provider number.

Alomere Health Lab Services has defined the date of service as the date the specimen is collected from the patient, not the date that the specimen is received at Alomere Health. Please remember to include the date and time collected on the requisition. For 24-hour urine collections, the date of collection should be the date the collection ends.

Plastic biohazard bags are supplied for transport of specimen and requisition. Send separate specimens if varying transport temperatures or if going to separate laboratories (ie, AH and Mayo).

Patient Preparation

Normal or reference values are usually based on specimen collection from patients who are in a fasting state. An overnight fast may be required. This means nothing to eat or drink, except water, for 12 to 14 hours after the previous evening meal. Any specimen collected from a non-fasting patient should be designated as such for optimal interpretation of results.

Many commonly prescribed medications can interfere with blood chemical determinations. Only general recommendations follow. Interfering medication must be determined by the physician, and the patient must then be instructed to avoid specified medications prior to specimen collection. If the patient cannot be taken off the medication, the presence of the medication should be noted on the request form. When there is no risk of serious deleterious effect to the patient, the College of American Pathologists recommends that medications which may cause interferences should be avoided for at least 4 to 24 hours prior to blood collection and 48 to 72 hours prior to urine collection. If this is impractical, in the case of blood studies it may be possible to withhold drugs only until the fasting a.m. specimen is collected.

For drug levels, include date and time of last dose.

Blood Collection

Most laboratory tests are performed on anticoagulated whole blood, plasma or serum. Unless otherwise noted, specimens should be refrigerated until and during transport. *Please refer to individual tests for specific requirements*.

- *Anticoagulated Whole Blood*—Choose the correct anticoagulant as per specimen requirements. Draw blood to completely exhaust the vacuum in the tube to ensure proper ratio of anticoagulant to blood. Mix immediately after drawing by gently inverting the tube 6 to 10 times. Label the tube appropriately.
  Note: Tubes intended for whole blood analysis are not to be centrifuged and separated.
- *Plasma*—Choose the correct anticoagulant as per the specimen requirements. Draw a sufficient amount of blood to yield the necessary plasma volume. It is important that the tube be completely filled (the vacuum exhausted) in order to ensure a proper ratio of anticoagulant to blood. Mix immediately after drawing by gently inverting the tube 6 to 10 times. Centrifuge immediately. Transfer plasma to appropriately labeled transport vial. Please indicate on the plasma tube what anticoagulant was used, if separated from cells.
- *Serum*—Draw a sufficient amount of blood to yield the necessary serum volume. (This is equal to approximately 2 and 1/2 times the amount of serum required.) Place the serum collection tube in an upright position and allow to clot at room temperature (or at 37° C, if specified) for no more than 30 minutes. As soon as the clot has formed, centrifuge for 10 minutes. Transfer serum to an appropriately labeled serum transport vial. Serum gel separator tubes may be used to enhance serum recovery and are the preferred collection tube for chemistry analyses. Serum gel separator tubes may be sent unopened if centrifuged. *Separate serum, however, if specimen is held longer than 24 hours*. If frozen serum is required, aliquot into separate plastic serum transport vial(s) and freeze immediately. **Do not freeze glass collection tubes.**

Specimen Collection Tubes

Color	Additive	Specimen
Red	Clot activator	Serum
Serum Gel Separator	Contains clot activator (ground glass) and gel separator	Serum (This is the preferred collection tube for chemistry analyses.)
Lavender	EDTA	EDTA whole blood EDTA plasma
Light Blue	Sodium citrate	Sodium citrated whole blood Citrated plasma
Royal Blue	EDTA	EDTA whole blood for trace elements
Royal Blue	No additive	Serum for trace elements
Green	Sodium heparin or lithium heparin	Heparinized whole blood Heparinized plasma
Grey	Potassium Oxalate/ Sodium Fluoride	Fluorinated whole blood Fluorinated plasma Preserves glucose and ETOH
Yellow	ACD	ACD whole blood ACD plasma

Order of Draw

- FIRST—blood culture tubes, sterile tubes
- SECOND—citrate tubes (light blue) **Note:** Fill completely. A discard tube is needed ONLY if using a tube holder and butterfly needle, to remove air from the tubing.
- THIRD—plain tubes, no additives
- FOURTH—Additive tubes in this order: BD VACUTAINER® Plus (red or serum gel separator), heparin (green), EDTA (lavender), and oxalate/fluoride (grey)

Fecal Specimens

All fecal specimens must be submitted in well-sealed, leakproof containers. See the specific specimen requirements for the procedure desired.

Culture Instructions

For most open lesions and abscesses, remove superficial flora by decontaminating skin before collecting a specimen from advancing margin or base.