



Specimen guide

**Specimen requirements, labeling, processing,
packaging & storage**

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SPECIMEN REQUIREMENTS

In the Allina Health Laboratory [Test catalog](#), use the **Test info** and **Specimen** tabs of each test to identify:

- Patient preparation requirements
- Specimen requirements
- Collection and processing instructions
- Specimen collection and transport container requirements
- Specimen stability (temperature) requirements
- Required forms or special instructions

Determine the specimen type needed

BLOOD

Most laboratory testing is performed on serum, anticoagulated plasma or whole blood. Follow the instructions in the Test catalog to collect the specimen, paying special attention to collection container/tube, volume/minimum volume and stability (temperature) requirements.

Serum

Obtain sufficient blood to deliver the required volume of serum. Generally, at least twice as much blood must be drawn to yield the volume of serum required. If a serum separator tube is used, immediately after drawing, gently invert the tube 8 to 10 times to activate the clotting mechanism in the tube.

Plasma

Use the appropriate anticoagulant as specified in the Test catalog. Obtain sufficient blood to deliver the required plasma volume. Immediately after drawing, gently invert the tube 8-10 times to mix, but DO NOT SHAKE.

Whole blood

If an anticoagulant is present, immediately after drawing, invert the tube gently 8-10 times to mix. Store at temperature recommended in instructions.

URINE

1. Determine the container/preservative required
2. Review collection instructions with the patient
 - a. If a 24-hour collection is required, print the [24-Hour Urine Collection Instructions](#) for the patient.
 - b. When you give the instructions and 24-hour collection container to the patient, review:
 - i. Collection duration
 - ii. Diet requirements
 - iii. Potentially hazardous preservatives in collection container
 - iv. Storage of the specimen until it is returned
3. When the sample is returned:
 - a. Record the total volume of the timed urine specimen
 - b. Mix well
 - c. Add the appropriate volume of sample to the indicated transport container
 - i. Some specimens require light protection to ensure specimen integrity. Use amber containers to prevent analyte degradation due to exposure to light.

STOOL

1. Review the test requirements and provide acceptable collection container(s) to the patient
2. Place a label with the patient information on the container or write the patient name on the label.
3. Give [Stool collection instructions](#) to the patient
4. Review with the patient:
 - a. Collection duration
 - b. Diet requirements
 - c. Storage of the specimen until it is returned
 - d. Do not fill any container more than 3/4 full (to the indicated line on the label)
 - e. How to obtain additional containers from you if necessary
5. When the patient returns the container to you, complete the following information on the label affixed to the container:
 - a. Duration of collection
 - b. Indicate whether the entire collection is contained in one container or in multiple containers. If multiple containers, indicate the number of each container (for example, 1 of 3).

SPECIMEN LABELING

General labeling requirements

- Each specimen must be labeled with two unique patient identifiers that match the order
 - Unique identifiers include:
 - Patient's complete legal first and last name
 - Date of birth
 - Allina Health Medical Record number
- LabLink and Excellian labels:
 - Place the label lengthwise on blood collection tubes, starting immediately below the cap
 - Place the label with the barcode running vertically on any screw capped containers/tubes

Other labeling requirements/Department specific requirements

Blood bank:

Manual requisitions (Non-Excellian sites):

The specimen container must be labeled with the patients first and last name, date of birth, date and time of collection and phlebotomist's initials.

Excellian sites:

The specimen container must be labeled with the patients first and last name, Excellian MRN, date and time of collection and phlebotomists A#

Cytology

GYN cytology (ThinPrep pap vials)

LabLink

- Label each specimen vial with the LabLink label

Excellian

- Label each specimen vial with Beaker tracking panel label, covering as little of the Excellian/patient label as possible.
 - The Beaker label must be applied with the barcode running up and down the vial, not around.

Non-GYN cytology specimens (urine, FNA or other sources)

LabLink

- Label each specimen vial with the LabLink label

Excellian

- Label each specimen vial with Beaker tracking panel label, covering as little of the Excellian/patient label as possible.
 - The Beaker label must be applied with the barcode running up and down the vial, not around.

Histology/Anatomic pathology:

Forms/paperwork:

- Label with two unique identifiers: **Patient's full name and date of birth**
- List the **specimen source and anatomic site** (i.e. Mole, Left forearm)
- Use **A, B, C, etc.** with multiple specimens from the same patient

Specimen container:

- Label with two unique identifiers: Patient's full name and date of birth or Allina Health MRN
- Label the jar; *not* the lid
- Label each jar with the letter (**A, B, C**) and **specimen source and anatomic site** to **exactly** match the description on the requisition

To prevent a delay in processing, all information on the requisition, or in the Excellian order, must exactly match the specimen container labeling.

Microbiology

Blood culture bottles:

- If labels are placed on blood culture bottles, they should not cover the manufacturer's barcode label.
- If the labels contain a barcode, the barcode should run the same direction as the manufacturer's barcode.

Mislabeled specimens

A specimen is considered mislabeled when there is a discrepancy between the unique identifiers on the specimen and the information accompanying the specimen. This information might include an electronic order, requisition form, or additional paperwork.

In addition, if a handwritten name and a label are on the container, the information must match exactly. For example, "Rebecca" does not match "Becky." When insufficient or inconsistent identification is submitted, a new specimen may be required.

Unlabeled specimens

Specimens with no unique patient identifying information are considered unlabeled. Labels must be affixed to the sample, and cannot be included loose in the specimen bag.

- All unlabeled specimens that can be easily recollected will be rejected
 - Examples include blood, urine and throat swabs
- All unlabeled specimens that cannot be easily recollected, or for which recollection would require an invasive procedure with risk to the patient, will be evaluated by a pathologist or PhD designee.
 - Examples include cerebrospinal fluid (CSF), bone marrow, tissue, body fluids, amniotic fluids and some swabs for culture, as well as timed procedures.

SPECIMEN PROCESSING

Centrifugation

Serum

Allow all serum gel barrier tubes to clot for 30 minutes in a vertical position. Within 2 hours of collection, centrifuge for 10 minutes at 1300 RCF. Immediately after centrifugation, transfer the serum from non-gel barrier tubes to the appropriate aliquot tube(s).

Plasma

Centrifuge the specimen tube for 10 minutes at 1300 RCF within 2 hours of collection*. If the tube contains a gel barrier and has been well centrifuged (no red cells on top of gel), an appropriate barrier will be created, and you do not need to remove the plasma from the tube. If the tube does not contain a gel barrier, immediately following centrifugation, transfer the plasma to the appropriate aliquot tube(s).

Platelet poor plasma

[How to prepare a specimen for special coagulation testing](#)

* *Samples for some tests may require centrifugation sooner. Refer to the Test catalog for specific test processing requirements.*

Transport container

Some specimens require that the specimen be transferred to an appropriate transport container to maintain specimen integrity.

Serum

Serum from all **plain** red top samples should be transferred to a plastic aliquot tube that is properly labeled with patient information. Do not re-centrifuge barrier tubes; pour off only if indicated in the Test Catalog.

Plasma

Following centrifugation, if no gel barrier material is present in the tube, as soon as possible after centrifugation transfer the plasma to a clean plastic aliquot tube using a disposable pipette. Use a spot label to indicate the type of plasma in the container.

Light protection

Some specimens require light protection to ensure specimen integrity.

How to handle a short specimen

When you are unable to collect the optimal amount of specimen for testing, the following steps must be taken in order to ensure that all testing is performed and resulted according to the provider's preferred priority:

Manual requisition sites:

- On the requisition, indicate the priority of each test ordered.

LabLink sites (portal or interface):

- Place the LabLink/Atlas specimen label for the highest priority test on the specimen.
- Identify the remaining specimen testing priority by writing the priority on each remaining label (2, 3, etc. with 2 being the second highest priority test), or test abbreviation on a label containing multiple tests.
- Wrap all of the prioritized specimen labels around the tube and secure with a rubber band.
- Package the specimen as usual.

Excellian/Beaker sites:

- Place the Beaker specimen label for the highest priority test on the specimen.
- Identify the remaining specimen testing priority by writing the priority on each remaining Beaker label (2, 3, etc. with 2 being the second highest priority test).
- Wrap all of the prioritized Beaker specimen labels around the tube and secure with a rubber band.
- If the short specimen is for testing that is on multiple packing lists, place all labels with the specimen in one specimen bag.

If specimen quantity is insufficient to complete all requested testing, Allina Health Laboratory will notify your facility of any tests that will not be performed or resulted.

SPECIMEN STORAGE

Unless otherwise indicated in the instructions, it is generally best to refrigerate whole blood, serum, plasma, body fluid and urine specimens. Refer to the specific specimen requirements included with each test for information on specimen stability.

Frozen Specimens

When instructions specify freezing:

- Centrifuge specimens
- Transfer the sample into the appropriate transport tube as soon as possible.
 - *Do not freeze whole blood, serum or plasma that has not been removed from the plain red stopper or separator tube except in the very rare instance that instructions specify this should be done.*
 - *If instructed to protect from light, aliquot into an amber aliquot tube or wrap in foil.*
- Using a permanent marker, label the tube with the patient's full name, a secondary identifier (Date of Birth or Allina Medical Records Number) and date of collection.
- Place a spot label on the tube indicating the specimen type (EDTA Plasma, Heparin Plasma, NaCi Plasma P.P.P. or Serum)
- Freeze promptly in the coldest freezer available.
- Send samples in a *Frozen* biohazard transport bag. This will alert the couriers that the specimen is frozen and must remain frozen during transport.

SPECIMEN PACKAGING

Manual requisition clients

- Package each individual patient's specimens separately. For each patient, place all specimens with the same storage requirements into the zipper pocket side of the specimen bag and seal tightly.
 - If specimens with two or more storage types are being submitted for an individual patient, a requisition must be included with each package.
 - You can complete a requisition for each storage type or
 - If all testing is included on one requisition, make copies of the requisition to include with the additional specimen packages, crossing off any test(s) not being performed on each specimen container/package.
- Fold the requisition for the patient, and place in the outside pouch of the biohazard bag, with the *name visible*.
- STAT specimens should be packaged in a STAT biohazard specimen bags. This allows us to give the sample prompt attention.
- Place all patient sample bags for a specific transport temperature into a single courier transport bag
 - Place a courier tracking label on each courier transport bag

Electronic (LabLink) ordering clients

- Place all patient samples for a particular transport temperature into one biohazard sample bag
- Place all biohazard bags for a specific transport temperature into a single courier transport bag
 - Pap and anatomic pathology specimens should be packaged in separate courier transport bags.
 - Place a courier tracking label on each courier transport bag

Excellian sites

GYN Cytology (Pap vials)

- Package specimens by packing list; include packing list in bag with specimens.
 - Ensure all specimens on packing list are in the specimen bag.
- Place into a courier bag and add courier tracking barcode.

Non-GYN Cytology (urine, FNA, other source):

- Package each specimen in individual specimen bag.
 - Place corresponding Excellian requisition in the bag pocket.
- Place each specimen on the appropriate packing list.

Histology/Pathology Tissues

- Package each patient's specimen(s) in individual specimen bag.
 - Place Beaker Shell ID or Tracking Panel label and any pathologist documentation in the bag pocket including the supplemental form required for breast specimens.
- Place all biohazard bags, by temperature, into a courier bag and add courier tracking barcode.

How to package and transport an oversized tissue specimen

If you have a surgical tissue specimen for histopathologic examination that is too large to fit into a pre-filled formalin container, follow the steps below to package and transport the sample to Allina Health Laboratory:

- Obtain the appropriate sized container using the Supply catalog
 - Four sizes are available from Allina Health Laboratory for our outreach clients; 32oz, 64oz, 83oz and 170oz.
- Place the specimen in the container, and cover with 10% neutral buffered formalin.
 - The formalin must be obtained by the client; Allina Health Laboratory does not supply formalin cubes.
- Label the container following the Allina Health Laboratory labeling guidelines and apply a 10% Formalin warning label (Standard Register #A-0083)
- Place the lid on the container and, if available, seal with parafilm to help prevent formalin leakage.
- Place the sealed container in an extra-large routine biohazard bag.
- Place any extra labels (Excellian clients only) and all accompanying paperwork in the outer pocket of the biohazard bag.
- Seal the biohazard bag and place it in a courier transport bag, maintaining an upright position.
- Close/seal the courier transport bag and apply a courier bar-code label to the bag.
- *Notify the courier that the package must remain in an upright position during transport.*

CONFIDENTIAL TESTING (Test ordering privacy)

Testing may be ordered under an alias in order to maintain patient privacy. We can only offer this confidential ordering for tests ordered using manual requisitions and billed to your client account. No aliases can be used if you request that the charges be submitted to an insurance payer for reimbursement.

Allina Health Laboratory recommends the following alias name structure:

Last name: Patient's initials
Middle name: Ordering provider's last name or facility name in parentheses
First name: Date ordered

Example: Patient Joseph Charles Glad from ABC Clinic was drawn on 9-13-2021

The alias name would be: JCG, 091321 (ABC)

- You may code the alias any way your that your facility desires, *as long as it contains both alpha and numeric characters*. We recommend that a patient's Social Security Number (SSN) not be used.
- In order to ensure accurate reference ranges, the patient's sex and actual DOB must be included on the requisition. An address is also required; the patient address is preferred, however, if that is not possible, your facility address may be used.
- Per Allina Health Laboratory specimen labeling requirements, both the alias patient name, as well as the second identifier (DOB), matching those appearing on the requisition, must be included on each specimen submitted to Allina Health Laboratory for testing.

CONTACT INFORMATION

For additional information or assistance pertaining to collection, processing or transport procedures, contact the Allina Health Laboratory Client Services department, or your account representative

Client services

Phone: (612) 863-4678
(800) 281-4379
Fax: (612) 863-4067
Email: centrallabclientservices@allina.com

Account representatives

Email: allinahealthlaboratoryaccountrepresentatives@allina.com