

HEMATOPATHOLOGY

SPECIMEN COLLECTION GUIDE

BONE MARROW ASPIRATION AND BIOPSY

PREPARATION OF THE PATIENT

Follow your facility's procedure. Direct patient to avoid blood thinners (such as anticoagulant and antiplatelet drugs) prior to procedure to minimize bleeding risk.

MATERIALS NEEDED

- Sagis Hematopathology requisition
- Glass slides
- Forceps
- Chemical-resistant marker
- Biohazard bags
- Two 10% neutral buffered formalin containers
- Two or more purple top tubes (EDTA)
- Two or more green top tubes (sodium heparin)
- Frozen cold pack
- Specimen collection kit
- *Optional: Watch glass and dropping/transfer pipette*

LABELING AND PAPERWORK

1. Fill out Sagis Hematopathology requisition including pertinent clinical history and ICD-10 codes. Please attach most recent CBC, clinical notes/H&P, and previous pathology reports, if available.
2. Attach or fill out patient billing/insurance information.
3. Label the formalin containers, collection tubes, and slides with 2 patient identifiers (full name and date of birth), date and time of collection, specimen source (bone marrow), and specimen type (aspirate, clot, core, touch prep) with a chemical-resistant marker.

COLLECTION INSTRUCTIONS

1. For bone marrow evaluation collect:
 - a. At least 10 mL total of bone marrow aspirate is preferred.
 - b. *Optional (recommended if prolonged transport to lab, i.e. >8 hours) – make at least 6 air-dried bone marrow aspirate slides using a watch glass to identify bone marrow spicules and pipette to pick up spicules and place on slides, then smear across slide with another slide to make thin layer and let air dry.*
 - c. Place at least 2 mL of bone marrow aspirate in each of: 2 purple top tubes, 2 green top tubes, and the remainder allow to clot and place in one of the formalin containers.
 - i. If amount of aspirate is limited, attempt to place at least 2 mL in each of: 1 purple top tube, 1 green top tube, and the remainder allow to clot and place in one of the formalin containers.

- d. Bone marrow biopsy core: At least 2 cm in length is preferred. If no aspirate is collected (dry tap), obtain an additional 2 cm biopsy core, place the additional core in container with RPMI media or saline (not in formalin container), and notify Sagis for proper triage.
 - e. Make at least 2 touch prep slides, then place the core in one of the formalin containers.
 - i. If no aspirate is collected (dry tap), make a total of 10 touch prep slides (for possible FISH studies).
 - ii. To make touch preps: Using forceps, pick up the biopsy, dry off residual blood from the surface onto a clean gauze or paper towel, and gently touch several times on at least 2 glass slides. If the bone biopsy is fragile, gently slide it down the slide or touch gently between two slides.
 - f. If available, please provide a peripheral blood specimen with at least 2 mL collected in a purple top tube.
 - i. If no aspirate is collected (dry tap), please also provide an additional peripheral blood specimen with at least 2 mL collected in a green top tube.
2. If cultures or other clinical tests are needed, please send a portion of the specimen to your preferred clinical laboratory for these tests.
 3. Ensure that slides are completely (100%) air-dried, then place air-dried slides in slide transport containers. Ensure that slides are labeled appropriately with 2 patient identifiers and specimen type (touch prep or aspirate).
 4. Tighten and seal the lid of each container and collection tube properly. Ensure containers are labeled appropriately with 2 patient identifiers, date and time of collection, specimen source (bone marrow), and specimen type (aspirate, clot, core).
 5. Follow packing instructions provided with shipping container.
 - a. Place formalin containers and collection tubes in biohazard bags and seal bags.
 - b. Place slide transport containers and paperwork in shipping container per instructions.
 - c. Place thin foam pad in box over contents and place frozen cold pack on top. Make sure frozen cold pack does not come in direct contact with specimens.
 6. Transport to lab via courier or shipping service (overnight delivery).
 7. Specimens should be received at lab as soon as possible, preferably <24 hours but no later than 48 hours from collection to assure sample integrity and acceptable cell viability.

LIMITATIONS

Incorrect or no fixative, insufficient formalin, or wrong collection tube can limit interpretation.

Inadequate specimen can limit interpretation. Prolonged time from collection to receipt in lab can compromise specimen quality.

REJECTION CRITERIA

1. Category A infected specimen (CJD).
2. The specimen is not received from a licensed authorized source.
3. The specimen was intended for another laboratory.
4. Unlabeled or mislabeled specimen container.
5. Improper storage or transport conditions.

FLOW CYTOMETRY

PREPARATION OF THE PATIENT

Follow your facility's procedure.

MATERIALS NEEDED

- Sagis Requisition (Surgical Pathology, Cytopathology, or Hematopathology)
- Purple top (EDTA) or green top (sodium heparin) tube – if collecting peripheral blood
- RPMI media container (stored refrigerated) – if collecting tissue, fine needle aspiration, or body fluid
If no RPMI media is available, please notify Sagis for collection instructions
- Chemical-resistant marker
- Biohazard bags
- Frozen cold pack
- Specimen collection kit

LABELING AND PAPERWORK

1. Fill out appropriate Sagis requisition including pertinent clinical history and ICD-10 codes. Please attach most recent CBC, clinical notes/H&P, and previous pathology reports, if available.
 - a. Indicate flow cytometry will be needed by checking appropriate box on requisition or by writing on the requisition.
2. Attach or fill out patient billing/insurance information.
3. Label the RPMI container or collection tube with 2 patient identifiers (full name and date of birth), date and time of collection, specimen source, and specimen type (excision, biopsy, fine needle aspiration, etc.) with a chemical-resistant marker.

COLLECTION INSTRUCTIONS

1. For peripheral blood samples, collect at least 2 mL in one purple top or green top tube per your facility's procedure.
2. For tissue, fine needle aspirations, and body fluid specimens, please submit the following:
 - a. Tissue: Place at least 0.5 cm³ of fresh tissue in RPMI container with enough RPMI to submerge tissue completely.
 - b. Fine needle aspiration: Place contents of at least 2 needle passes in 5 mL of RPMI. Rinse needle and syringe in RPMI after each pass.
 - c. Body fluid: Submit equal parts RPMI to specimen volume.
3. If cultures or other clinical tests are needed, please send a portion of the specimen to your preferred clinical laboratory for these tests.
4. Tighten and seal the lid of each container and collection tube properly. Ensure container is labeled appropriately with two patient identifiers, date and time of collection, specimen source, and specimen type (excision, biopsy, fine needle aspiration, etc.).
5. Follow packing instructions provided with specimen collection kit.
 - a. Place thin foam pad in box over contents and place frozen cold pack on top. Make sure frozen cold pack does not come in direct contact with specimens.
 - b. For specimens in RPMI: store specimen collection kit in refrigerator until transport; **DO NOT FREEZE**
6. Transport to lab via courier or shipping service (overnight delivery).
7. Specimens should be received at lab as soon as possible, preferably <24 hours but no later than 48 hours from collection to assure sample integrity and acceptable cell viability.

LIMITATIONS

Incorrect or no media, insufficient RPMI media, or wrong collection tube can limit interpretation.

Inadequate specimen can limit interpretation. Prolonged time from collection to receipt in lab can compromise specimen quality.

REJECTION CRITERIA

1. Category A infected specimen (CJD).
2. The specimen is not received from a licensed authorized source.
3. The specimen was intended for another laboratory.
4. Unlabeled or mislabeled specimen container.
5. Improper storage or transport conditions.