

Specimen Collection and Handling Guidelines for Bone Marrow Aspirate

If protocol-specific collection and handling instructions for bone marrow aspirate are not provided in the protocol or through a linked resource (usually in Section 15 in SWOG-led protocols), then follow the instructions outlined below.

Collecting Bone Marrow Aspirate

1. Use the protocol-specified collection tube type(s) to collect bone marrow aspirate.
 - a. One or more tubes can be used to collect the required volume of bone marrow (e.g., if 10 mL of bone marrow aspirate is requested, then one 10-mL or two 5-mL tubes may be used to collect 10 mL).
 - b. Pre-label vacutainer tube(s) according to the [specimen labeling requirements](#).
 - Note: laterality (right or left) is a labeling requirement for bone marrow.
2. Use anticoagulated syringes to collect bone marrow aspirate. Then, place the marrow into the vacutainer tube(s).

Storage of Bone Marrow Aspirate

- Bone marrow aspirate should be shipped as soon as possible to optimize cell viability.
- If bone marrow aspirate cannot be shipped immediately after collection, then store at 4°C (40°F) until shipment. **Do not freeze the bone marrow aspirate.**
- Storage time longer than 24 hours can greatly impact specimen quality and should be avoided whenever possible.

Additional Considerations for Bone Marrow Aspirate Collections for Leukemia:

- For leukemia protocols, if participants have a high white blood cell count (e.g., greater than 100,000 cells/μL), then the bone marrow aspirate may be a “dry tap” (meaning that the collection is unsuccessful). In these cases, peripheral blood is often a potential substitute. Refer to the protocol for the volume of peripheral blood that should be collected instead, as it can be a larger volume than the bone marrow requested.