Test Definition: HFWET

Hematopathology Consult, MCL

Overview

Useful For

Obtaining a rapid, expert opinion for diagnosis of hematologic and non-hematologic diseases using unprocessed bone marrow biopsy specimens referred by the primary pathologist

Obtaining special studies that are not available locally

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
BMAPC	Bone Marrow Aspirate	No, (Bill Only)	No
BMBPC	Bone Marrow Biopsy	No, (Bill Only)	No
BMCPC	Bone Marrow Clot	No, (Bill Only)	No
DCALP	Decalcification	No, (Bill Only)	No
PBPC	Peripheral Blood	No, (Bill Only)	No

Testing Algorithm

Laboratory approval is required prior to ordering this test. Contact Mayo Clinic Laboratories at 800-533-1710.

A Mayo Clinic hematopathologist will provide a full bone marrow workup that includes an evaluation of the specimen and determination of a diagnosis provided within a formal pathology report.

Ancillary Testing:
Based on Mayo Clinic-approved algorithms or a staff hematopathologists' discretion, ancillary testing may be performed to assist with rendering an accurate diagnosis as well as provide important prognostic and therapeutic information. Cytochemical stains on bone marrow aspirate smear, immunohistochemical stains on bone marrow biopsy or clot sections, chromosome analysis, fluorescence in situ hybridization (FISH), flow cytometry, or molecular testing will be added as appropriate. These test results will be reported and separately billed. While reported separately, these results will continue to be considered and referred to in the final pathology interpretation. Results will be incorporated into the pathology report or separately reported in the clinical record (Plasma cell FISH genotyping per mSMART protocol).

If additional ancillary testing on this bone marrow specimen is desired by the client outside of this consultation, contact the Mayo Clinic Florida (MCF) hematopathologist. Ancillary testing requested by the client is approved and ordered at the discretion of the MCF hematopathologist.

If the volume of bone marrow aspirate is limited, prioritization of testing will be determined by the staff hematopathologist. Testing requested or suggested by the referring physician (immunostains, molecular studies, etc) may not be performed if deemed unnecessary by the reviewing staff hematopathologist.

Note: Calls are not routinely made; however, depending on the nature of the case, a call may be placed to the ordering provider or pathologist. These situations include, but are not limited to, a new diagnosis of acute leukemia or aggressive high-grade lymphoma. To contact a Mayo Clinic Hematopathologist, call the pathology secretary at 904-956-3318, who

will connect you with the appropriate hematopathologist on bone marrow service.

Special Instructions

- Bone Marrow Core Biopsy, Clot, and Aspirate Collection Guideline
- Assistance with Bone Marrow Collection
- Hematopathology Patient Information-MCF
- Pathology Consultation Ordering Algorithm-MCF

Highlights

If a bone marrow pathology consultation is requested, the Mayo Clinic hematopathologists approach the diagnosis in the same way as Mayo Clinic's in-house cases.

It is the Division of Hematopathology's mission to provide the highest possible level of diagnostic consultative service, trying to balance optimal patient care with a cost-conscious approach to solving difficult diagnostic problems for all patients.

Method Name

Medical Interpretation

NY State Available

No

Specimen

Specimen Type

Varies

Ordering Guidance

For test ordering guidance for other specimen types, see Pathology Consultation Ordering Algorithm.

Necessary Information

The following information is required:

1. All requisitions must be labeled with:

-Patient name, date of birth, and medical record number

-Name and phone number of the referring pathologist or ordering physician

-Collection date

2. All specimens and slides must be labeled with:

-Two patient identifiers (first and last name, date of birth, or medical record number)

-Specimen type (biopsy, clot, peripheral blood smear, etc)

-Anatomic site (left iliac crest or right iliac crest)

3. All specimens (bone marrow core biopsy, bone marrow aspirate clot, bone marrow aspirate, peripheral blood smears, and bone marrow aspirate slides), patient history, and requests must be clearly labeled with correct patient information and case number.

4. A brief history (recent clinical note is preferred), patient information, and recent complete blood cell count results

(within 2 days of bone marrow specimen) are required. A complete pathology report is not expected.
Hematopathology Patient Information may be used to provide patient information. Send with the specimens.
5. All pending and final reports for ancillary testing on above specimens.

Specimen Required

Multiple specimens are required to perform testing.

Submit each of the following:

Specimen Type: Bone marrow core biopsy unprocessed
Container/Tube: 10% formalin solution
Collection Instructions:
1. If bone marrow units are sparse or absent or aspirate is a dry tap, make 3 biopsy touch prep slides.
2. Place biopsy core in 10% formalin immediately after collection.
3. Place Parafilm around the container to prevent leaking and exposure to formalin fumes during transport.

Specimen Type: Bone marrow clot unprocessed
Container/Tube: 10% formalin solution
Collection Instructions:
1. Place 0.5 mL bone marrow aspirate in clot tube.
2. After clot has formed, place clot in 10% formalin.
3. Place Parafilm around the container to prevent leaking and exposure to formalin fumes during transport.

Specimen Type: Whole blood
Container/Tube: Transport in plastic slide holders.
Collection Instructions:
1. Prepare 2 good quality smears of even thickness from whole blood EDTA within 8 hours of collection.
2. Submit unstained and unfixed slides.
3. Place slides in a plastic slide holder and place parafilm around the slide holder. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens during transport. If using slide carriers, make sure they have not previously been used to carry fixed slides.

Specimen Type: 2 slides from bone marrow aspirate and 1 slide from roll preparation on bone marrow biopsy (or 3 slides from a roll preparation on bone marrow biopsy)
Container/Tube: Transport in plastic slide holders.
Collection Instructions:
1. Prepare fresh prep slides of good quality (push and squash) made at the time of sample collection of even thickness from aspirate and roll prep slides from bone biopsy. Select 1 push, 1 squash, 1 roll of best quality, and send slides unfixed and unstained.
2. If bone marrow units are sparse or absent or aspirate is a dry tap, make 3 bone biopsy roll prep slides and send all 3 slides unfixed and unstained.
3. Air dry slides.
4. Place slides in a plastic slide holder and place parafilm around the slide holder. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens during transport. If using slide carriers, make sure they have not previously been used to carry fixed slides.

Specimen Type: Bone marrow aspirate in anticoagulant for possible ancillary testing
Container/Tube: Lavender top (EDTA), yellow top (ACD), and green top (sodium heparin)
Specimen Volume:
3 mL in EDTA
6 mL in ACD
6 mL in sodium heparin
Collection Instructions:
1. Aspirate per standard bone marrow collection procedure.
2. Send bone marrow specimens in original tubes. **Do not aliquot.**

Forms
Hematopathology Patient Information **is required.**

Specimen Minimum Volume
See Specimen Required

Reject Due To
No specimen should be rejected.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Ambient		

Clinical & Interpretive

Clinical Information
Diagnosis of a hematologic disease requires thorough and accurate morphologic examination of peripheral blood and bone marrow as well as interpretation of ancillary testing results (eg, cytochemistry, immunohistochemistry, flow cytometric immunophenotyping, chromosome analysis, fluorescence in situ hybridization, and molecular testing) by a highly qualified hematopathologist. With recent advent of new understanding and treatment options, more ancillary tests are available. Efficient utilization and accurate interpretation of these tests are crucial for patient care. These tests can assist in rendering an accurate diagnosis and could provide prognostic prediction and potential indication or guidance of therapy.

Reference Values
An interpretive report will be provided.

Interpretation
Results of the consultation are reported in a formal pathology report that includes a description of ancillary test results (if applicable) and an interpretive comment.

This consultative practice strives to bring the physician and patient the highest quality of diagnostic pathology in all areas of expertise, aiming to utilize only those ancillary tests that support the diagnosis in a cost-effective manner, and

to provide a rapid turnaround time for diagnostic results.

Cautions

All appropriate stained/unstained slides, biopsy tissue, and aspirate are **required** in order to make a diagnosis. The referring pathologist's and clinician's names and phone numbers are essential.

Clinical Reference

Sundaram S, Jizzini M, Lamonica D, et al: Utility of bone marrow aspirate and biopsy in staging of patients with T-cell lymphoma in the PET-Era-tissue remains the issue. Leuk Lymphoma. 2020 Dec;61(13)3226-3233. doi: 10.1080/10428194.2020.1798950

Performance

Method Description

All requests will be processed as a consultation case. Ancillary testing will be performed as appropriate to be diagnostically indicated and at an additional charge.

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

3 to 7 days (additional time may be required for ancillary test results).

Specimen Retention Time

Specimens embedded by Mayo Clinic will not be returned to the client when testing is complete. Slides prepared at Mayo Clinic: Indefinitely. Bone Marrow Aspirate unstained slides: 1 month

Performing Laboratory Location

Mayo Clinic Jacksonville Hospital Lab

Fees & Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification

Not Applicable

CPT Code Information

85060 (if appropriate)
85097 (if appropriate)
88305 (if appropriate)
88311 (if appropriate)
88313 (if appropriate)

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
HFWET	Hematopathology Consult	60570-9

Result ID	Test Result Name	Result LOINC® Value
617046	Interpretation	59465-5
617047	Report Electronically Signed By	19139-5
617052	Addendum	35265-8
617050	Gross Description	22634-0
617048	Material Received	81147-1
617053	Disclaimer	62364-5
617054	Case Number	80398-1
617051	Microscopic Description	22635-7
617049	Clinical History	22636-5