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**Reporting Title:** MDS, Diagnostic FISH**Performing Location:** Rochester**Ordering Guidance:**

Chromosome analysis is recommended as first-tier testing; order either CHRBM / Chromosome Analysis, Hematologic Disorders, Bone Marrow, or CHRHB / Chromosome Analysis, Hematologic Disorders, Blood. This second-tier test should only be ordered if chromosome analysis is not successful, as it does not increase the sensitivity for detection of myelodysplastic syndrome (MDS) for classic abnormalities (ie, -5/5q-, -7/7q-). If this test is ordered concurrently with a chromosomal study (CHRBM or CHRHB), testing will be held pending the results of the chromosome test. If the chromosome results are complete and informative, this test will be canceled. If the chromosome results are complete and normal, this test will be canceled. If a complete chromosome study is not achieved (<20 metaphases), this test will proceed. If an ambiguous abnormality (may include nonclonal abnormality or unresolved structural abnormality) is observed and targeted MDS probes could be useful in characterizing the abnormality, this test will be canceled and reordered with appropriate probes as MDSMF / Myelodysplastic Syndrome (MDS), Specified FISH, Varies.

This test should not be used to screen for residual MDS. If the patient is being treated for known abnormalities, MDSMF / Myelodysplastic Syndrome (MDS), Specified FISH, Varies is the more appropriate test order.

This test is intended for instances when the entire MDS fluorescence in situ hybridization (FISH) panel is needed as a second-tier test. If limited MDS FISH probes are preferred, order MDSMF.

If this test is ordered in conjunction with AMLAF / Acute Myeloid Leukemia (AML), FISH, Adult, Varies or AMLPF / Acute Myeloid Leukemia (AML), FISH, Pediatric, Varies, it will be canceled and reordered as MDSMF to avoid duplicate FISH probe testing.

At follow-up, targeted MDS FISH probes can be evaluated based on the abnormalities identified in the diagnostic study. Order MDSMF / Myelodysplastic Syndrome (MDS), Specified FISH, Varies and request specific probes or abnormalities.

**Shipping Instructions:**

Advise Express Mail or equivalent if not on courier service.

**Necessary Information:**

1. A reason for testing should be submitted with each specimen. The laboratory will not reject testing if this information is not provided, but appropriate testing and interpretation may be compromised or delayed. If this information is not provided, an appropriate indication for testing may be entered by Mayo Clinic Laboratories.
2. A pathology and/or flow cytometry report may be requested, if not received, by the laboratory to optimize testing and aid in interpretation of results.

**Specimen Requirements:**

Submit only 1 of the following specimens:

Preferred:

Specimen Type: Bone marrow

Container/Tube:

Preferred: Yellow top (ACD)

Acceptable: Green top (heparin) or lavender top (EDTA)

Specimen Volume: 2 to 3 mL

Collection Instructions:

1. It is preferable to send the first aspirate from the bone marrow collection.
2. Invert several times to mix bone marrow.
3. Send bone marrow in original tube. Do not aliquot.

Acceptable:

Specimen Type: Blood

Container/Tube:

Preferred: Yellow top (ACD)

Acceptable: Green top (heparin) or lavender top (EDTA)

Specimen Volume: 6 mL

Collection Instructions:

1. Invert several times to mix blood.
2. Send whole blood in original tube. Do not aliquot.

**Specimen Minimum Volume:**

Blood: 2 mL

Bone Marrow: 1 mL

**Forms:**

If not ordering electronically, complete, print, and send an Hematopathology/Cytogenetics Test Request (T726) with the specimen.

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)		
	Refrigerated		

**Ask at Order Entry (AOE) Questions:**

Test ID	Question ID	Description	Type	Reportable
MDSDF	GC121	Reason for Referral	Plain Text	Yes

Test ID	Question ID	Description	Type	Reportable
MDSDF	GC122	Specimen: <ul style="list-style-type: none"> <li>• Whole blood ACD</li> <li>• Bone marrow ACD</li> <li>• Whole blood Na Hep</li> <li>• Bone marrow Na Hep</li> <li>• Whole blood EDTA</li> <li>• Bone marrow EDTA</li> </ul>	Answer List	Yes

## Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
614278	Result Summary	Alphanumeric		50397-9
614279	Interpretation	Alphanumeric		69965-2
614280	Result Table	Alphanumeric		93356-4
614281	Result	Alphanumeric		62356-1
GC121	Reason for Referral	Alphanumeric		42349-1
GC122	Specimen	Alphanumeric		31208-2
614282	Source	Alphanumeric		31208-2
614283	Method	Alphanumeric		85069-3
614284	Additional Information	Alphanumeric		48767-8
614285	Disclaimer	Alphanumeric		62364-5
614286	Released By	Alphanumeric		18771-6

LOINC and CPT codes are provided by the performing laboratory.

## Supplemental Report:

No

## CPT Code Information:

88271 x 12, 88275 x 6, 88291-FISH Probe, Analysis, Interpretation; 6 probe sets  
88271 x 2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate)

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**Reflex Tests:**

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
MDSDB	Probe, Each Additional (MDSDF)			No	No (Bill Only)

**Reference Values:**

An interpretive report will be provided.