INDICATION FOR TESTING
Microcytic anemia (low MCV)

ORDER
Ferritin test
AND
iron and iron binding capacity test

Normal iron parameters

Check RBC count

Low SF

Increased TIBC, low serum iron, low Tsat

IDA

Decreased TIBC, high serum iron, low Tsat

IDA

Other results

High SF

Consider inflammatory disease, sideroblastic anemia, aplastic anemia, bone marrow failure

Abnormal iron parameters

Nondiagnostic SF

IDA

Evaluate for other types of anemia

ORDER
sTfR testing

Low SF

Normal or high

IDA

Evaluate for anemia of chronic disease/inflammation

HbA2 not elevated

Consider evaluation for α thalassemia a

HbA2 elevated

Evaluate for β thalassemia a

sTfR not elevated

IDA

Consider bone marrow biopsy

sTfR elevated

IDA

EP not elevated

EP elevated

Abbreviations
EP  Erythrocyte porphyrin
HbA2  Hemoglobin A2
IDA  Iron deficiency anemia
MCV  Mean corpuscular volume
RBC  Red blood cell
SF  Serum ferritin
sTfR  Soluble transferrin receptor
TIBC  Total iron binding capacity
Tsat  Transferrin saturation

aAlso refer to the ARUP Consult Hemoglobinopathies Testing Algorithm.

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