Hematology



4207 E. Cotton Center Blvd, Phoenix, AZ 85040 P +1 888.354.8168 | F +1 855.856.0655 | info@fulgentoncology.com Highlighted fields are required information **CLIENT INFORMATION PATIENT INFORMATION** Last Name First Name MI Address City State Zip Date of Birth (MM/DD/YYYY) Sex Assigned at Birth Phone Patient MR# ORDERING PHYSICIAN/PRACTITIONER SIGNATURE X INSURANCE/BILLING INFORMATION Attach a copy of the patient's demographic sheet, both sides of the patient's insurance card(s) and all secondary insurance information (if applicable). PRIOR AUTHORIZATION NUMBER Medicare MediCal Insurance Patient/Self Pay Client Billing ICD-10 information is required - Physician Notice: Only tests or diagnostic services that are medically necessary should be ordered. Appropriate ICD-10 information must be in the specified area to the left. Payers, including Medicare and Medicaid, ICD-10 CODE(S) generally do not pay for screening tests. ABN is required for Medicare patients if ICD-10 codes provided do not support reasoning for testing. PERTINENT INDICATION OR CLINICAL HISTORY Please provide relevant patient reports CLINICAL HISTORY/INDICATIONS AND NARRATIVE DIAGNOSIS/CLINICAL DATA Please attach copy of recent CBC, copy of doctor's notes/clinical history, pathology reports, and any relevant test results Acute Lymphoblastic Leukemia Eosinophilia Myeloma, Plasma Cell **DIAGNOSIS** B-Cell T-Cell Hodakin Lymphoma Myelodysplastic Syndrome New Follow up Remission History of Rule out Lineage Uncertain Leukemia, Unspecified Myeloproliferative Neoplasm Acute Myeloid Leukemia Leukocytosis, Unspecified MDS/MPN Neoplasm AML Hepatosplenomegaly T-ALL Anemia Leukopenia Neutrophilia CLL/SLL ☐ MDS Bone Lesions Blast Cells in Blood Lymphadenopathy Non-Hodgkin Lymphoma MPN B-NHL (type) _ Skin Lesions Chronic Lymphocytic Leukemia Lymphocytosis Polycythemia CML T-NHL (type) Carcinoma (type) Chronic Myeloid Leukemia Monoclonal Gammopathy Suspected Malignant Neoplasm B-ALL Hodgkin Lymphoma Other Chronic Myelomonocytic Leukemia Monocytosis Thrombocytopenia THERAPY Current Therapy Prior (>1 month ago) PREVIOUS CYTOGENETICS/FISH Abnormal (please provide report) Normal Anti-CD19 Therapy Anti-CD30 Therapy Erythropoietin Therapy Allogeneic Bone Marrow Transplant Autologous Bone Marrow Transplant Anti-CD Therapy Anti-CD18 Therapy G-CSF Donor Sex: Male Female SPECIMEN INFORMATION Indicate number of tubes, vials, slides or tissue blocks provided PATIENT STATUS WHEN SPECIMEN COLLECTED (must choose one): Hospital Inpatient Hospital Outpatient Non-Hospital Outreach/Clinic Patient Bone Marrow Biopsy: Core # Clot # Touch Preparations # Bone Marrow Aspirate: Green-top(s) (Na Heparin) # Purple-top(s) (EDTA) # Peripheral Blood: Green-top(s) (Na Heparin) # Purple-top(s) (EDTA) # Smears # Tissue Biopsy: Tissue Type/Location ____ Paraffin Block Formalin Fixed Fresh in RPMI Fresh in Saline Specimen ID# Other (CSF, FNA, Body Fluid, etc. — include location): COMPREHENSIVE HEMATOLOGICAL EVALUATION RECOMMENDED LUMERA™ COMPREHENSIVE HEMATOLOGICAL EVALUATION* Evaluation includes a full clinical history review, morphology, flow cytometry, and cytogenetics. FISH and molecular testing, including Heme NGS Profile, are performed as medically necessary. Hematopathologist will determine appropriate testing based on clinical data and morphological findings. INDIVIDUAL DIAGNOSTIC/PROGNOSTIC TESTS Select individual tests below Morphology/Microscopic Evaluation Molecular Testing (with Interpretation) ☐ Heme NGS Profile (Includes DNA and RNA Sequencing) APL Monitoring ☐ Consult ☐ Morphology Evaluation Note: This test is performed as part of the Comprehensive Hematological Evaluation service when medically necessary Quantitative PML/RARA (48-hour stability) Flow Cytometric Analysis ☐ Leukemia/Lymphoma Panel ☐ KIT (D816V) Mutation by dPCR (0.1% AF) ☐ Prognostic panel ZAP-70 for CLL—Blood Only ☐ BCR-ABL1 Screening p190, p210 (no previous results) ☐ BCR-ABL1 Follow-up (select one): ☐ p190 ☐ p210 ☐ Prognostic panel for PNH Evaluation—Blood Only Lymphoproliferative Disorder ☐ ABL Kinase Domain Mutation (Including T315I) (for patients with known and treated disease only) ☐ B-Cell Clonality/Gene Rearrangement Cytogenetic Analysis[‡] ☐ T-Cell Clonality/Gene Rearrangement \square Cytogenetic Analysis with reflex to FISH if clinically indicated Myeloproliferative Neoplasms ☐ IGHV Mutation Analysis (CLL) Fluorescence In Situ Hybridization (FISH) ☐ MYD88 L265P (Waldenstrom/Lymphoplasmacytic) MPN Panel □ AML □ MDS □ CML (BCR/ABL1) □ Eosinophilia □ B-ALL □ T-ALL (JAK2 V617F reflex to JAK2 Exon 12, CALR and/or MPL W515K/L/A □ CXCR4 □CLL □B-CellNHL □PCM □MPN □DLBCL □APLSTAT ☐ BRAF (HCL) as medically appropriate) □ CD5(-)/CD10(-) □ Marginal Zone/MALT1 □ Burkitt □ Mantle Cell ☐ Other □ Follicular □ Anaplastic Large Cell □ AML w/monocytic differentiation □ Reflex when medically necessary for applicable panels \square AML Prognostic Panel (known AML diagnosis only)

(FLT3 and NPM1 with reflex to CEBPA)

☐ Perform IDH1/IDH2 as part of AML Panel

☐ Individual Probes (see reverse)

Peripheral blood is not an optimal specimen for Cytogenetics or FISH except for CLL and CML

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HEMATOLOGY/ONCOLOGY OPTIMAL SPECIMEN REQUIREMENTS

The matrix below indicates the optimal specimens required for testing. Please include as many specimens as possible for each technology. For a complete and timely analysis, please include all recommended specimen types.

TEST/TECHNOLOGY	BONE MARROW CORE	BONE MARROW CLOT	BONE MARROW ASPIRATE	PERIPHERAL BLOOD	PERIPHERAL BLOOD SMEAR	LYMPH NODES/ FRESH TISSUE	FIXED TISSUE (PARAFFIN BLOCK W/H&E)	FLUIDS	STORAGE & TRANSPORT
Comprehensive Bone Marrow Analysis	Place in 10% formalin	Place in 10% formalin	2–3 ml in green-top (sodium heparin) tube AND 3–6 ml in purple-top (EDTA) tube	3–6 ml in purple-top (EDTA) tube and CBC (a CBC will be performed if not submitted)	4–6 freshly prepared smears preferred				Store at room temperature Use FROZEN cold pack for transport.
Comprehensive Bone Marrow Analysis (Dry Tap)	One (1) core in formalin and one (1) core in RPMI [§]			2–3 ml in green-top (sodium heparin) tube AND 3–6 ml in purple-top (EDTA) tube	4–6 freshly prepared smears preferred				Store at room temperature. Use FROZEN cold pack for transport.
Comprehensive Peripheral Blood Analysis				2–3 ml in green-top (sodium heparin) tube AND 3–6 ml in purple-top (EDTA) tube	2–3 freshly prepared smears preferred				Store at room temperature. Use FROZEN cold pack for transport.
Morphology	At least four (4) touch preparations (air-dried). Place core in 10% formalin	Place in 10% formalin	4–5 freshly prepared smears preferred AND 1 ml aspirate in purple-top (EDTA)	2–3 ml in purple-top (EDTA) tube and CBC (a CBC will be performed if not submitted)	2 freshly prepared smears	Place in 10% formalin	Representative paraffin block		Store at room temperature. Use FROZEN cold pack for transport.
Flow Cytometry			2–3 ml in purple- top (EDTA) tube preferred	2–3 ml in purple–top (EDTA) tube preferred		Representative tissue in RPMI [§] or saline		Representative fluid	Store at room temperature. Use FROZEN cold pack for transport.
ZAP-70 for CLL or PNH Evaluation				2–3 ml in purple-top (EDTA) tube preferred					Store at room temperature. Use FROZEN cold pack for transport.
Immunohistochemistry (IHC)	Place in 10% formalin	Representative paraffin block				Place in 10% formalin	Representative paraffin block		Store at room temperature. Use FROZEN cold pack for transport.
Cytogenetics - Karyotype			2–3 ml in green-top (sodium heparin) tube	2–3 ml in green-top (sodium heparin) tube Peripheral blood is not an optimal specimen for Cytogenetics except for CLL and CML					Store at room temperature. Use FROZEN cold pack for transport.
Fluorescence in situ Hybridization (FISH)			3 ml in green-top (sodium heparin) preferred or purple- top (EDTA) tube	3 ml in green-top (sodium heparin) preferred or purple-top (EDTA) tube Peripheral blood is not an optimal specimen for FISH except for CLL and CML			Paraffin block accepted for select FISH panels; please check panel descriptions below		Store at room temperature. Use FROZEN cold pack for transport.
Molecular (PCR, Sequencing)			2–3 ml in purple-top (EDTA) tube	3–6 ml in purple-top (EDTA) tube			Representative paraffin block		Store at room temperature. Use FROZEN cold pack for transport.

 $^{^{\}S}$ DO NOT use RPMI if it is cloudy, yellow or is at or beyond expiration date. Use only pink/orange RPMI. If RPMI is not available, use saline.

FISH: The panels are designed to detect the most common abnormalities for a given disease group. Additional probes may be added, as medically necessary, to further characterize abnormalities found in the primary panel(s). Peripheral blood is not an optimal specimen for Cytogenetics or FISH except for CLL and CML.

AML RPN1/MECOM [inv(3)/t(3;3)/ ins(3;3)] RUNXITI::RUNX1 [t(8;21)] KMT2A (11q23.3) PML::RARA [t(15;17)] CBFB [inv(16)/t(16;16)]	MDS EGRI (5q31.2) D7S522 (7q31) CEN 8 D20S108 (20q12) Reflex RPN1/MECOM [inv(3)/t(3;3)/ins(3;3)] KMT2A (11q23.3) RB1(13q14.2)/LAMP1(13q34) TP53 (17p13.1)/CEN 17	CML BCR::ABL1 [†(9;22)]	Eosinophilia PDGFRA (4q12) PDGFRB (5q32-q33) FGFR1 (6p11.23) JAK2 (9p24.1)	B-ALL PBXI:TCF3 [t(1;19)] CEN 4 CDKN2A (9p21.3)/CEN 9 BCR::ABL1 [t(9;22)] CEN 10 KMT2A (11q23.3) ETV6::RUNX1 [t(12;21)]	T-ALL CDKN2A (9p21.3)/CEN 9 BCR::ABLI [t(9;22)] KMT2A (11q23.3) TP53 (17p13.1)/CEN 17	CLL MYB (6q23.3)/CEN 6 ATM (11q22.3) CCND1::IGH [f(11;14)] CEN 12 D13S319 (13q14.3) TP53 (17p13.1))
B-Cell NHL BCL6 (3q27) MYC (8q24) CCNDI::IGH [f(11;14)] IGH::BCL2 [f(14;18)] MALT1 (18q21) Bone marrow aspirate and FFPE are acceptable specimen types	PCM CDKN2C/CKS1B (1p32.3/1q21) CEN 9 CEN 11 CCND1::IGH [f(11;14)] RB1(13q14.2)/LAMP1(13q34) IGH (14q32) TP53 (17p13.1)/CEN 17 Reflex FGFR3::IGH [f(4;14)] IGH::MAF [f(14;16)] IGH::MAFB [f(14;20)]	MPN EGR1 (5q31) D75S22 (7q31) CEN 8 JAK2 (9q24.1) CDKN2A (9p21.3)/CEN 9 BCR::ABL1 [t(9;22)] RB1(13q14.2)/LAMP1(13q34) D20S108 (20q12)	DLBCL-Double, Triple Hit BCL6 (3q27) MYC (8q24) MYC::IdF (1(8;14)] BCL2 (18q21.33) IGH:::BCL2 [t(14;18)]	APL STAT PML::RARA [f(15;17)] Reflex RARA (17q21.2) ① TAT 24 hours	CD5(-)/CD10(-) Lymphoproliferative BCL6 (3q27) D7S522 (7q31) CEN 12 IGH (14q32) TP53 (17p13.1)/CEN 17 MALT1 (18q21) Reflex CCND1::IGH [t(1;14)] IGH::BCL2 [t(14;18)]	Marginal Zone/MALT1 BCL6 (3q27) BIRC3:::MALT1[f(11;18)] CEN 12 IGH (14q32) MALT1 (18q21) FFPE or fresh tissue only Reflex CCND1::IGH [f(11;14)] IGH:::BCL2 [f(14;18)]
Burkitt Lymphoma MYC (8q24)	Mantle Cell Lymphoma CCND1::IGH [t(11;14)]	Follicular Lymphoma IGH::BCL2 [†(14;18)]	Anaplastic Large Cell Lymphoma ALK (2p23) If negative, reflex to: TP63 (3q28) IRF4/DUSP (6p25.3)	AML w/monocytic differentiation CBFB [inv(16)/f(16;16)] KMT2A (11q23.3) NUP98 (11p15.4)	Additional Available Probes HER2/CEN 17 ROS1, MET, RET Melanoma (CCND1, RREB1, MYB, CEN 6, CDKN2A, CEN 9) Oligodendroglioma (1p/19q) Undecalcified Formalin-Fixed Tissues Only	

Fulgent/Inform Diagnostics medical staff will select the number and type of antibodies, other reagents or probes that are necessary. In keeping with the requirements of Medicaid and Medicare, it is the policy of Fulgent/Inform Diagnostics to only perform testing that is medically necessary for the diagnosts and treatment of the patient. Medicare does NOT pay for routine screening tests. Phone: 888,354.8168 | Fax: 855.866.0655 | 12202023