



MEMORANDUM #22

To: UNCHCS Attending Physicians, Housestaff, Nursing Coordinators, Department Heads and Supervisors

From:  Margaret L. Gulley, MD, Director of Molecular Pathology Programs
 Herbert C. Whinna, MD, PhD, Medical Director, McLendon Clinical Laboratories

Date: May 31, 2017

Re: Newly Available Lymphoid Mutation Panel

Effective June 1, 2017, the Molecular Genetics Laboratory will be offering a 5-gene Lymphoid Mutation Panel. This panel will allow targeted sequencing of genes implicated in chronic lymphocytic leukemia, hairy cell leukemia, and lymphoplasmacytic lymphoma.

Gene Regions Tested:

The Lymphoid Mutation Panel includes selected exons of *BRAF*, *MYD88*, *NOTCH1*, *SF3B1*, and *TP53*. Detailed information on targeted exons is available on the McLendon Laboratories website.

Clinical Indications for Lymphoid Mutation Panel:

In patients with chronic lymphocytic leukemia, mutations in *NOTCH1*, *SF3B1*, and *TP53* refine prognosis and helps select patients who may merit more aggressive intervention.

In patients with hairy cell leukemia, the presence of a *BRAF* codon 600 mutation may assist diagnosis and classification by distinguishing this leukemia from cases of hairy cell-variant and splenic lymphomas which lack *BRAF* mutation.

Finally, in patients with low grade lymphoma, the presence of a *MYD88* mutation may help distinguish lymphoplasmacytic lymphoma from histologically and morphologically similar cases of marginal zone lymphoma.

Specimen Requirements: Bone marrow aspirate (1 mL, EDTA) and peripheral blood (3mL, EDTA) are preferred. However, Wright-stained or unstained cytologic slides (e.g. bone marrow aspirate smears, lymph node touch preparation) are also accepted. The assay is generally sensitive to variants above 5% allele fraction (10% clonal cells). Therefore, a minimum percentage of 10% neoplastic cells is required.

Reference:

Swerdlow SH, et al. The 2016 revision to the World Health Organization classification of lymphoid neoplasms. *Blood*. 2016; 127:2375-2390. PMID: 26980727

Questions? Call the UNC Molecular Genetics Lab at (984) 974-1825 or Dr. Margaret Gulley at (919) 843-4595. E-mail: margaret_gulley@med.unc.edu