**INDICATIONS FOR TESTING**
- Elevated WBC with lymphocytosis
- Abnormal manual differential

**ORDER**
- Leukemia/Lymphoma Phenotyping by Flow Cytometry

**Abnormal phenotyping**

- Aberrant T-cell or NK-cell phenotype

  **T- or NK-cell lymphoproliferative disorder**

  - At least 1 positive: CD56, CD57, or CD16

    **Large granular lymphocytic leukemia (LGLL)**

    - CD3+ T-cell LGLL
    - CD3- NK-cell LGLL

    - CD10+ CD4+ 
    - CD4+/- CD8+/-
    - CD30+ 
    - CD4+ CD7- CD26-

    **CD19+ and/or CD20+ Light chain restriction**

    - B-cell lymphoproliferative disorder

    - Consider peripheral T-cell lymphoma NOS
    - Consider anaplastic large-cell lymphoma
    - Consider Sézary syndrome

**Suspected reactive lymphocytosis**

**Consider reactive lymphocytosis**

**Infectious etiology:**
- Viral (Epstein Barr virus, cytomegalovirus, HIV, HTLV, hepatitis, HHV8)
- Other (tuberculosis, Rickettsia, brucella, toxoplasmosis, syphilis, Babesia)

**Consider**
- Epstein-Barr Virus by PCR
- Epstein-Barr Virus (EBV) by in situ Hybridization, Paraffin

**CONSIDER**
- Follicular lymphoma
- Burkitt lymphoma
- Some diffuse large B-cell lymphomas
- Gastric MALT

**CONSIDER**
- Hairy cell leukemia
- Lymphoplasmacytic lymphoma

**Manage cause and repeat WBC**

**Unexplained persistence**

**POST TRANSPLANT**

**CD5- CD10+**

- **CD11c+ CD25+ CD103+**
- **MYD88 L265P mutation**

**Dim CD20**

**CD23+ Low light chain intensity**

- Bright CD20, CD43, CD23-, Cyclin D+
  - High light chain intensity

**PROGNOSTIC/THERAPEUTIC**
- **IGHV Mutation Analysis by Sequencing**
- **Chromosome FISH, CLL Panel**

**DIAGNOSTIC**
- Chromosome FISH, Interphase
- **IGH-BCL2 Fusion, t(14;18) by FISH**
- **BCL6 (3q27) Gene Rearrangement by FISH**
- **IGH/MYC Fusion, t(8;14) by FISH**
- **MYC (8q24) Gene Rearrangement by FISH**
- **Lymphoma (Aggressive) Panel by FISH**
- **Aggressive B-Cell Lymphoma FISH Reflex, Tissue**

**BRAF V600E Mutation Detection in Hairy Cell Leukemia by Real-Time PCR, Quantitative**

**ORDER**

**Lymphoma Leukemia Phenotyping Testing**

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