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

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

**Suspected reactive lymphocytosis**
- Manage cause and repeat WBC

**Unexplained persistence**
- Consider reactive lymphocytosis

**Abnormal phenotyping**

**Yes**
- Aberrant T-cell or NK-cell phenotype
  - T- or NK-cell lymphoproliferative disorder
    - At least 1 positive: CD56, CD57, or CD16
    - CD10+ CD4+
    - CD4+/- CD8+/-
    - CD30+
    - CD4+ CD7- CD26-
    - Consider Sézary syndrome

**No**
- CD19+ and/or CD20+ Light chain restriction
- B-cell lymphoproliferative disorder
  - Infectious etiology:
    - Viral (Epstein Barr virus, cytomegalovirus, HIV, HTLV, hepatitis, HHV8)
    - Other (tuberculosis, Rickettsia, brucella, toxoplasmosis, syphilis, Babesia)

**Yes**
- Manage and repeat WBC
- Consider drug-induced hyperthyroidism, autoimmune thyroid disease, thymoma

**No**
- Consider peripheral T-cell lymphoma NOS
  - Consider anaplastic large-cell lymphoma

**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**
- Post transplant
- T-cell LGLL
- NK-cell LGLL

**DIAGNOSTIC**
- T-Cell Clonality by Next Generation Sequencing
- T-Cell Clonality by Flow Cytometry
- Analysis of TCR V-Beta
- T-Cell Clonality Screening by PCR

**DIAGNOSTIC/PROGNOSTIC**
- 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

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

**PROGNOSTIC/THERAPEUTIC**
- IGHV Mutation Analysis by Sequencing
- ZAP-70 Analysis by Flow Cytometry
- Chromosome FISH, CLL Panel

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**DIAGNOSTIC**
- Chromosome FISH, Interphase on fresh tissue
- IGH-CCND1 Fusion, t(11;14) by FISH
- IGH-CCND1 (BCL-1/ JH) Translocation, t(11;14) by PCR