Screen for secondary causes of eosinophilia (common causes are asthma, allergy, drug reaction, infection, neoplasms)

Screen also for *Strongyloides* infection with serologic testing, especially if glucocorticoid treatment may be indicated

For organ-specific signs or symptoms (eg, skin or esophageal), consider tissue biopsy

Underlying condition (cause of secondary/reactive eosinophilia) identified

Positive

Negative and/or >5,000 eosinophil cells/µL

Indications for Testing

Peripheral blood eosinophilia/hypereosinophilia uncovered incidentally during medical evaluation or workup for specific symptoms

- Eosinophilia, 500-1,500 cells/µL
- Hypereosinophilia, >1,500 cells/µL

Perform hematopathologic workup on peripheral blood for

- Myeloproliferative neoplasm by FISH to detect cytogenetic rearrangements
- T-cell clonality by leukemia/lymphoma phenotyping using flow cytometry

Primary bone marrow causes of eosinophilia include chronic eosinophilic leukemia (not otherwise specified) and myeloid/lymphoid neoplasms with reactive eosinophilia

Negative

Monitor for developing cause

ARUP Tests

- Eosinophilia Panel by FISH (probes include *PDGFRα*, *PDGFRβ*, *FGFR1*, and *CBFB*)
- Leukemia/Lymphoma Phenotyping by Flow Cytometry
- *Strongyloides* Antibody, IgG by ELISA, Serum
- Eosinophil Granule Major Basic Protein, Tissue

© 2018 ARUP Laboratories. All Rights Reserved. www.arupconsult.com Content Reviewed: September 2018 Last Updated: September 2018

*Eosinophilia from any cause can be associated with thromboembolic phenomena and cardiac disease as detected by, for example, splinter hemorrhages, nail fold infarcts, and/or cardiac murmur of mitral insufficiency.*

*Eosinophilia/hypereosinophilia of undetermined significance (also called benign eosinophilia or idiopathic hypereosinophilia). Cause may be detected or patient may continue to have benign eosinophilia (or be deemed to have familial eosinophilia, a rare subset of eosinophilia/hypereosinophilia of undetermined significance).*