Erythrocytosis Evaluation Testing Algorithm

Patient presents with erythrocytosis
- Elevated red blood cell count
- Elevated hemoglobin and hematocrit

Collect specimens for both:
- JAK2B / JAK2 V617F Mutation Detection, Blood
- EPO / Erythropoietin (EPO), Serum

Testing begins with: JAK2B / JAK2 V617F Mutation Detection, Blood

POSITIVE
- Polycythemia vera/chronic myeloproliferative neoplasm

NEGATIVE
- EPO / Erythropoietin (EPO), Serum
  - Decreased
    - Order test JAKXB / JAK2 Exon 12 and Other Non-V617F Mutation Detection, Blood
  - Normal or elevated
    - Life-long erythrocytosis
    - Acquired erythrocytosis

Order test REVE / Erythrocytosis Evaluation Testing includes:
- Oxygen Dissociation P50
- Hemoglobin Electrophoresis
With possible reflex to:
- Hemoglobin Electrophoresis, Molecular
- Hereditary Erythrocytosis Mutations
- von Hippel-Lindau (VHL) Gene, Full Gene Analysis
- BPGM Full Gene Sequencing