Vitamin B<sub>12</sub> Deficiency Evaluation

**ACASM / Pernicious Anemia Cascade, Serum**
Testing begins with Vitamin B<sub>12</sub> Assay, Serum

- **<150 ng/L**
  - No further testing is performed. Result does not suggest vitamin B<sub>12</sub> deficiency.
  - This value implies that there is no deficiency of vitamin B<sub>12</sub> at the cellular level.

- **150-400 ng/L**
  - Methylmalonic acid
  - **≤0.4 nmol/mL**
    - Intrinsic factor blocking antibody
      - **POSITIVE**
        - Result consistent with pernicious anemia.
      - **NEGATIVE**
        - Gastrin
          - **>200 pg/mL**
            - Result consistent with pernicious anemia.
          - **≤200 pg/mL**
            - Result does not suggest pernicious anemia as the cause of vitamin B<sub>12</sub> deficiency.

- **>150 ng/L**
  - **>0.4 nmol/mL**
    - Intrinsic factor blocking antibody
      - **INDETERMINATE**
        - Result does not suggest pernicious anemia as the cause of vitamin B<sub>12</sub> deficiency.