مجلس الضمان الصحي
Council of Health Insurance

Medical Necessity Criteria for Vitamin B12 Testing

For Opinion and Feedback for 1 month

لأخذ الملاحظات واستطلاع الرأي لمدة شهر

For communication with the medical department

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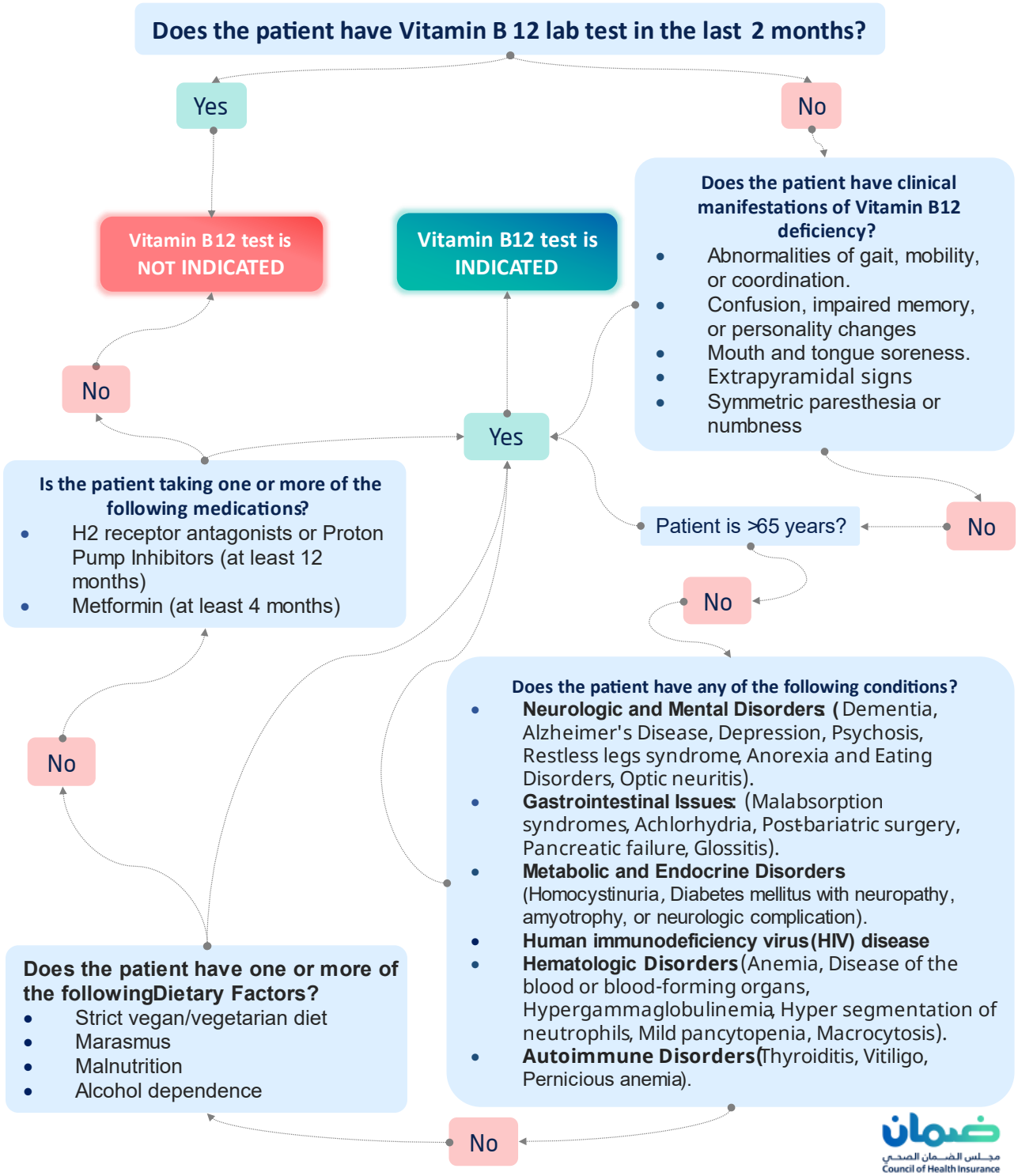
Should Your Patient Get a Vitamin B12 Test? A decision Guide

This guidance is currently limited to testing for vitamin B 12 deficiency in non - pregnant adults.



Medical Necessity Criteria for Vitamin B12 Testing

The following recommendations are based on medical evidence, clinician input, and expert opinion. The content of the document is dynamic and will be revised as new information becomes available. The purpose of this document is to assist practitioners in clinical decision-making, to standardize and improve the quality of patient care, and to promote cost-effective test ordering. **THE CLINICIAN SHOULD UTILIZE THIS GUIDANCE AND INTERPRET IT IN THE CLINICAL CONTEXT OF THE INDIVIDUAL PATIENT.**

Scope:

This guidance is currently limited to testing for Vitamin B12 deficiency in non-pregnant adults.

Recommendations:

- Routine vitamin B12 testing in healthy, asymptomatic adults is not indicated.
- Indications for vitamin B12 measurement (if unexplained by other etiology):

1. **Clinical manifestations Indicative of Vitamin B12 Deficiency**
   - Abnormalities of gait, mobility, or coordination.
   - Confusion, impaired memory, or personality changes
   - Mouth and tongue soreness.
   - Extrapyramidal signs
   - Symmetric paresthesia or numbness
2. **High-Risk group (Vitamin B12 Deficiency is either a predisposing factor or an etiology)**

Neurologic and Mental Disorders:

- Dementia
- Alzheimer's Disease
- Depression
- Psychosis
- Restless legs syndrome
- Anorexia and Eating Disorders
- Optic neuritis

Gastrointestinal Issues:

- Malabsorption syndromes (e.g. Celiac Disease, Inflammatory Bowel Diseases like Crohn's and Ulcerative Colitis, Short Bowel Syndrome, Blind Loop Syndrome)
- Achlorhydria
- Post-bariatric surgery
- Pancreatic failure
- Glossitis

Metabolic and Endocrine Disorders

- Homocystinuria
- Diabetes mellitus with neuropathy, amyotrophy, or neurologic complication

3. **Medication-Induced Risk**
   - Prolonged use of H2 receptor antagonists or Proton Pump Inhibitors (at least 12 months)
   - Metformin (at least 4 months)
4. **Hematologic Disorders**
   - Anemia
   - Disease of the blood or blood-forming organs
   - Hypergammaglobulinemia
   - Hyper segmentation of neutrophils
   - Mild pancytopenia
   - Macrocytosis
5. **Autoimmune Disorders**

- Thyroiditis
- Vitiligo
- Pernicious anemia

6. **Dietary Factors**
   - Strict vegan/vegetarian diet
   - Marasmus
   - Malnutrition
   - Alcohol dependence
7. **Age-Related Risk**
   - Elderly individuals aged 65 and above.
8. **Infections**
   - Human immunodeficiency virus (HIV) disease

Follow-up and Monitoring

- If vitamin B12 level is found to be low, initiate appropriate investigation and treatment.
- Repeat testing after 2 months of initiating oral therapy or after 1 month of initiating parenteral therapy.
  - If vitamin B12 level normalized, repeat testing is NOT required in the absence of clinical manifestations of vitamin B 12 deficiency.
  - If vitamin B12 level still low, investigate for the cause, treat accordingly, and repeat vitamin B 12 test should only be done if treatment is ongoing to monitor the response but NOT more than 6 times a year.

Source

- Alshammari A, Iqbal R, Baksh I. Vitamin B12 deficiency and the knowledge and practice of physicians regarding screening for vitamin B12 deficiency among type 2 diabetic patients on metformin in selected hospitals in Riyadh, Saudi Arabia. *Journal of Family Medicine and Primary Care*. 2019;8(7):2306. doi:10.4103/jfmpc.jfmpc_416_19
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- Andres E. Vitamin B12 (cobalamin) deficiency in elderly patients. *Canadian Medical Association Journal*. 2004;171(3):251-259. doi:10.1503/cmaj.1031155
- Robert C Langan [1], Andrew J Goodbred. Vitamin B12 Deficiency: Recognition and Management. *Am Fam Physician.* 2017;96(6):384-389