

Vitamin B12 Testing

Adjudication Guideline

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1. Abstract

1.1 For Members

Vitamin B12 deficiency may occur when dietary intake is inadequate or when the body is unable to absorb the vitamin effectively.

The risk of vitamin B12 deficiency is increased in people following a strict vegan diet due to the limited natural availability of vitamin B12 in plant-based foods, as well as in individuals with impaired absorption resulting from stomach or bowel surgery, atrophic gastritis, Crohn's disease or celiac disease. The risk may also be increased with the use of medications that interfere with vitamin B12 absorption, including anticonvulsants, acid-suppressing medications such as H2-receptor antagonists and proton pump inhibitors, and metformin.

These populations are at a higher risk of vitamin B12 deficiency and may require testing, dietary counselling, supplementation, or further evaluation when clinically indicated.

1.2 For Medical Professionals

Vitamin B12 deficiency classically presents with megaloblastic anaemia but may also manifest with neurological and neuropsychiatric symptoms.

Although relatively uncommon in the general population, the risk of vitamin B12 deficiency is increased in older adults, individuals with chronic malabsorption disorders, those with a history of gastric resection or bariatric surgery, and patients receiving certain medications, including metformin and proton pump inhibitors (PPIs).

Early recognition and diagnosis are critical to prevent or halt the progression of potentially irreversible neurological complications, such as peripheral neuropathy, subacute combined degeneration of the spinal cord, cognitive impairment, and dementia.

Once vitamin B12 deficiency has been confirmed, the underlying cause should be investigated to guide appropriate management, reduce the risk of recurrence, and prevent disease progression.

A serum vitamin B12 level <180 pg/mL (133 pmol/L) is generally considered diagnostic of vitamin B12 deficiency.

Intramuscular administration should be considered in patients with severe deficiency or neurologic manifestations.

2. Scope

The Scope of this adjudication rule is to highlight the medical indications and the coverage criteria for diagnostic B12 testing for all health insurance plans administered by Daman subject to policy terms and conditions.

3. Adjudication Policy

3.1 Eligibility / Coverage Criteria

Testing should be offered when a patient has at least one risk factor for, plus at least one clinical feature of vitamin B12 deficiency:

Risk factors include:

- **Malabsorptive conditions:** bariatric/gastric surgery, ileal resection, Crohn disease with extensive ileal disease, ileoanal pouch (bacterial overgrowth), pernicious anemia/atrophic gastritis and tapeworm infection.
- **Prolonged medication use:** metformin (>4 months), proton pump inhibitors or H2 blockers (>12 months).
- **Dietary factors:** inadequate intake like in vegan or strict vegetarian diet, or alcohol use disorder.
- **Postoperative patients:** requiring long-term nutrition support, or those already on treatment for known B12 deficiency, to monitor status.
- **Congenital (hereditary) disorders:** Genetic defects that impair vitamin B12 absorption, transport, or intracellular processing, including Imerslund-Gräsbeck syndrome and other inherited disorders of cobalamin metabolism.
- **Older age:** particularly >75 years.

Clinical features include:

- **Hematologic:** macrocytic anemia, or unexplained macrocytosis on routine labs.
- **Neurologic:** peripheral neuropathy (numbness/tingling in hands/feet), ataxia, proprioception deficits, subacute combined degeneration.
- **Neuropsychiatric/constitutional:** fatigue, brain fog, depression, cognitive decline/dementia.
- **Other:** glossitis, loss of appetite, unexplained weight loss.

3.2 Requirements for Coverage

- Failure to submit the requested clinical history and peripheral blood film reports, particularly abnormal MCV findings, may result in claim rejection.
- ICD and CPT codes must be reported at the highest level of specificity.
- Vitamin B12 testing must be ordered by an appropriate clinician.
- Repeat reimbursement for vitamin B12 testing is only eligible when the test is performed at least 3 months after the initiation of treatment, unless otherwise clinically justified.

3.3 Non-Coverage

Vitamin B12 Testing is not covered for the following scenarios:

1. For Visitor Plan.
2. When performed for screening purposes in healthy, asymptomatic individuals.
3. When ordered by a general practitioner.

3.4 Payment and Coding Rules

Please apply the Regulator payment rules and regulations and relevant coding manuals.

4. Denial Codes

Code	Code Description
CLAI-012	Submission not compliant with contractual agreement
CODE-013	Invalid principal diagnosis
CODE-10	Activity/diagnosis inconsistent with clinician speciality
MNEC-003	Service is not clinically indicated based on good clinical practice
MNEC-004	Service is not clinically indicated based on good clinical practice, without additional supporting diagnoses/activities
MNEC-005	Service /supply may be appropriate, but too frequent
PRCE-002	Service is included in another service paid
CLAI-012	Submission not compliant with contractual agreement

5. Appendices

5.1 References

- <https://pubmed.ncbi.nlm.nih.gov/28925645/>
- <https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-vitamin-b12-and-folate-deficiencies>
- <https://www.gov.nl.ca/labformulary/files/Vitamin-B12-Status-testing.pdf>
- <https://onlinelibrary.wiley.com/doi/full/10.1111/bjh.12959>
- <https://www.aafp.org/afp/2025/0900/vitamin-b12-deficiency>
- <https://www.nature.com/articles/nrdp201740>
- <https://www.nice.org.uk/guidance/ng239/chapter/Recommendations#recognising-vitamin-b12-deficiency>

5.2 Revision History

Date	Change(s)
12/08/2022	Creation of Adjudication Guideline-External Instruction.
31/12/2024	V2.0 • Reviewed as per the system requirement • Template Updated • References Updated
10/10/2026	V3.0 • Medical indications reviewed and updated in line with best medical practices. • Template updated. • References updated.

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