

# Vitamin B12 Deficiency in Pregnancy



## 1. Purpose

Vitamin B12 is essential for infant neurodevelopment. Undiagnosed maternal vitamin B12 deficiency during pregnancy or lactation may result in irreversible neurological damage to the infant. Although maternal vitamin B12 deficiency is uncommon, the majority of women with deficient B12 levels are asymptomatic.

This clinical guideline outlines the requirement for clinical management of Vitamin B12 deficiency in Pregnancy at the Women's and is related to other nutritional deficiency guidelines

## 2. Definitions

Not applicable.

## 3. Responsibilities

Not applicable.

## 4. Guideline

Routine measurement of vitamin B12 is not required unless there are risk factors present, or other laboratory tests indicate possible B12 deficiency.

These circumstances include:

- increased MCV (mean corpuscular volume)
- long standing vegetarian or vegan diet. Also consider referral to dietitian
- gastrointestinal surgery or pathology (coeliac disease, Crohn's disease, gastric banding/bypass etc)
- family history of vitamin B12 deficiency or pernicious anaemia.

The preferred test in pregnancy is holotranscobalamin (active B12) as total serum B12 levels fall during pregnancy in the absence of B12 deficiency.

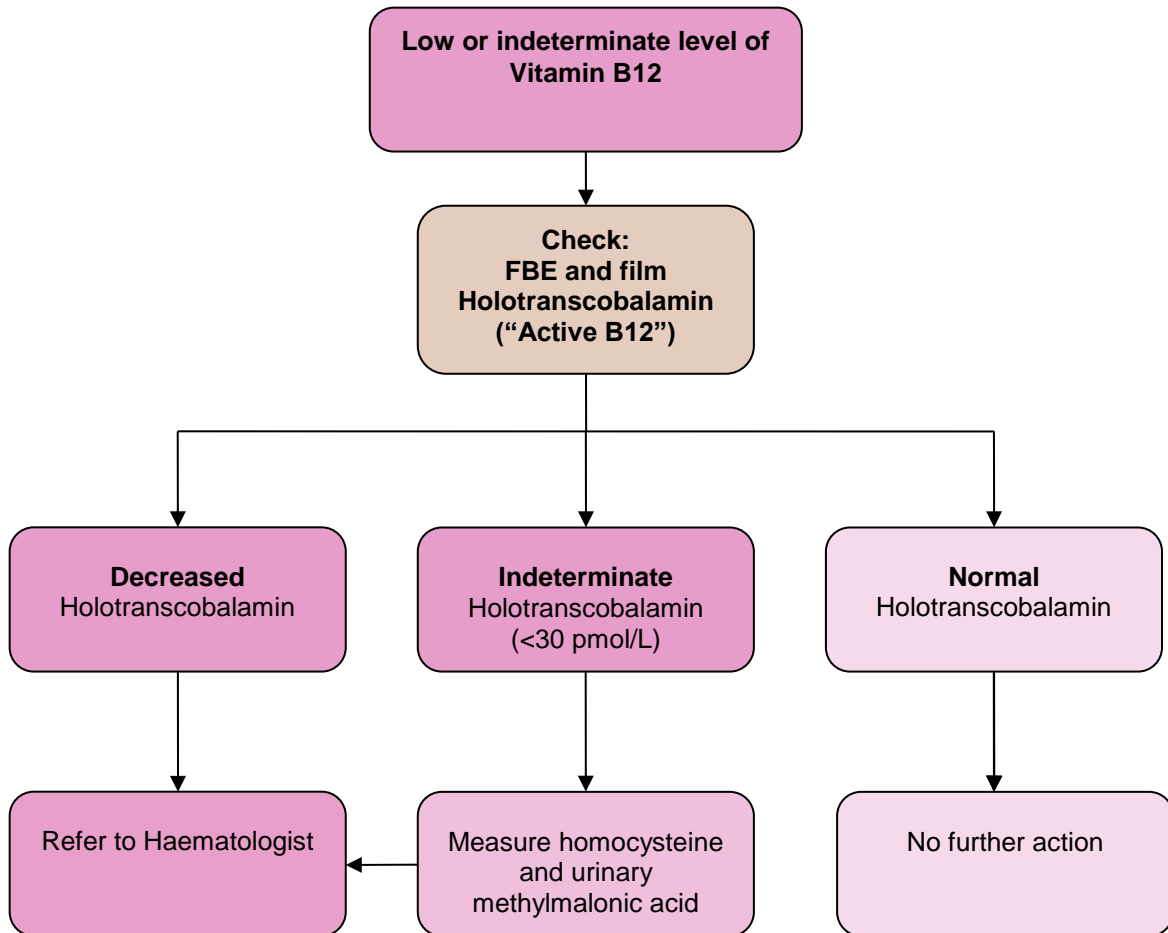
If low or indeterminate total serum B12 is detected by testing through the woman's general practitioner, holotranscobalamin (active B12) should be measured before any B12 supplementation occurs.

[See over the page for flow chart.](#)

# Vitamin B12 Deficiency in Pregnancy



Flowchart 1



## 5. Evaluation, monitoring and reporting of compliance to this guideline

To be developed.

## 6. References

Nil applicable.

## Vitamin B12 Deficiency in Pregnancy



### 7. Legislation/Regulations related to this guideline

Nil applicable.

### 8. Appendices

Nil applicable.

The policies, procedures and guidelines on this site contain a variety of copyright material. Some of this is the intellectual property of individuals (as named), some is owned by The Royal Women's Hospital itself. Some material is owned by others (clearly indicated) and yet other material is in the public domain.

Except for material which is unambiguously and unarguably in the public domain, only material owned by The Royal Women's Hospital and so indicated, may be copied, provided that textual and graphical content are not altered and that the source is acknowledged. The Royal Women's Hospital reserves the right to revoke that permission at any time. Permission is not given for any commercial use or sale of this material.

No other material anywhere on this website may be copied (except as legally allowed for under the Copyright Act 1968) or further disseminated without the express and written permission of the legal holder of that copyright.

Advice about requesting permission to use third party copyright material or anything to do with copyright can be obtained from General Counsel.