

Appendix A –1 Minute Health Check – B12 Deficiency signs and symptoms

A quick score will reveal if B12 deficiency, underactive thyroid or iron deficiency anaemia are possible diagnoses, and if the physician should order further tests.

This should be completed by the patient – it is sometimes helpful to circle the actual symptom experienced.

Name _____ DOB _____ Date _____

Where will you grade these symptoms 1-10? 1 indicates that this symptom is mild and infrequent. 10 indicates the patient has it all the time and it is severe and debilitating. A score of 5 indicates that the patient has the symptom and it affects their daily life to a moderate extent.



Signs and Symptoms	Score 1-10
Energy/ haemopoetic	
Weariness, Lethargy, tiredness, fatigue, faints	
Sleepy, tired in the afternoon	
Nervous system	
Tremor, foot drop	
¥ Loss of balance (ataxia), seizures, falls	
¥ Tingling or numbness in hands and/or feet, burning sensation	
Restless leg syndrome	
Facial Palsy	
Spastic movements, Crampy pain in limbs	
¥ Stiffness of limbs, muscle wasting	
¥ Weakness or loss of sensation in limbs, shooting pain in back/ limbs, paralysis	
Migrainous headache	
Psychiatric	
Irritable, snappy, disturbed sleep	
Confused, Memory disturbance/ forgetful, foginess	
Tension Headaches	
* Mental slowness, Mood swings, Anxiety/ Panic Attacks, depression	
* Psychosis, hallucinations, delusion	
Eye Ear Throat	
Blurred vision/ double vision/ drooping of eyelid (lid lag), orbital pain	
Dizziness, tinnitus	
Difficulty swallowing, persistent cough	
Immune System	
Prone to recurrent URTI, UTI, Respiratory infections	
Other auto-immune conditions	
Hypoadrenalism, myxedema/ underactive thyroid	

Signs and Symptoms	Score 1-10
Cardiovascular/ Respiratory	
Shortness of breath, wheeziness	
Palpitations, chest pain	
Pallor, lemon yellow complexion	
Bruising, Vasculitis	
Gastro-Intestinal (GI)	
Sore tongue, bleeding gums	
Red beefy tongue	
Cracking the angles of mouth	
Metallic taste, unusual taste, loss of appetite, loss of weight	
Gastric symptoms-acidity, heartburn	
Intermittent diarrhoea, IBS	
Skin hair nail skeletal	
Premature greying	
Alopecia, Unexplained hair loss	
Joint inflammation, swelling, pain	
Dry skin, brittle nails	
Genito-Urinary (GU)	
Heavy painful periods, irregular periods, infertility & frequent miscarriages	
Polycystic ovarian disease	
Loss of libido	
Shooting pain from groin to perineum	
Incontinence	
Personal & Family History	
Family history of B12 deficiency (Pernicious Anaemia), underactive thyroid, diabetes, vitiligo, depression	
Vegetarian, vegan, poor diet	
Alcoholism, Smoking	

- PHQ9 Patient Health Questionnaire to be completed
 ¥ Neurological examination and appropriate referral if indicated

Physician should also order routine blood tests including serum B12 in the following cases:

- ME, CFS, Fibromyalgia, Hypoadrenalism, MS-like presentation
- Children born to B12-deficient mothers, presenting with behavioural problems, learning disability, dyspraxia, dyslexia and autistic spectrum disorders

Before making a provisional diagnosis of B12 deficiency, exclude all other possible diagnoses, with appropriate blood tests as clinically indicated.

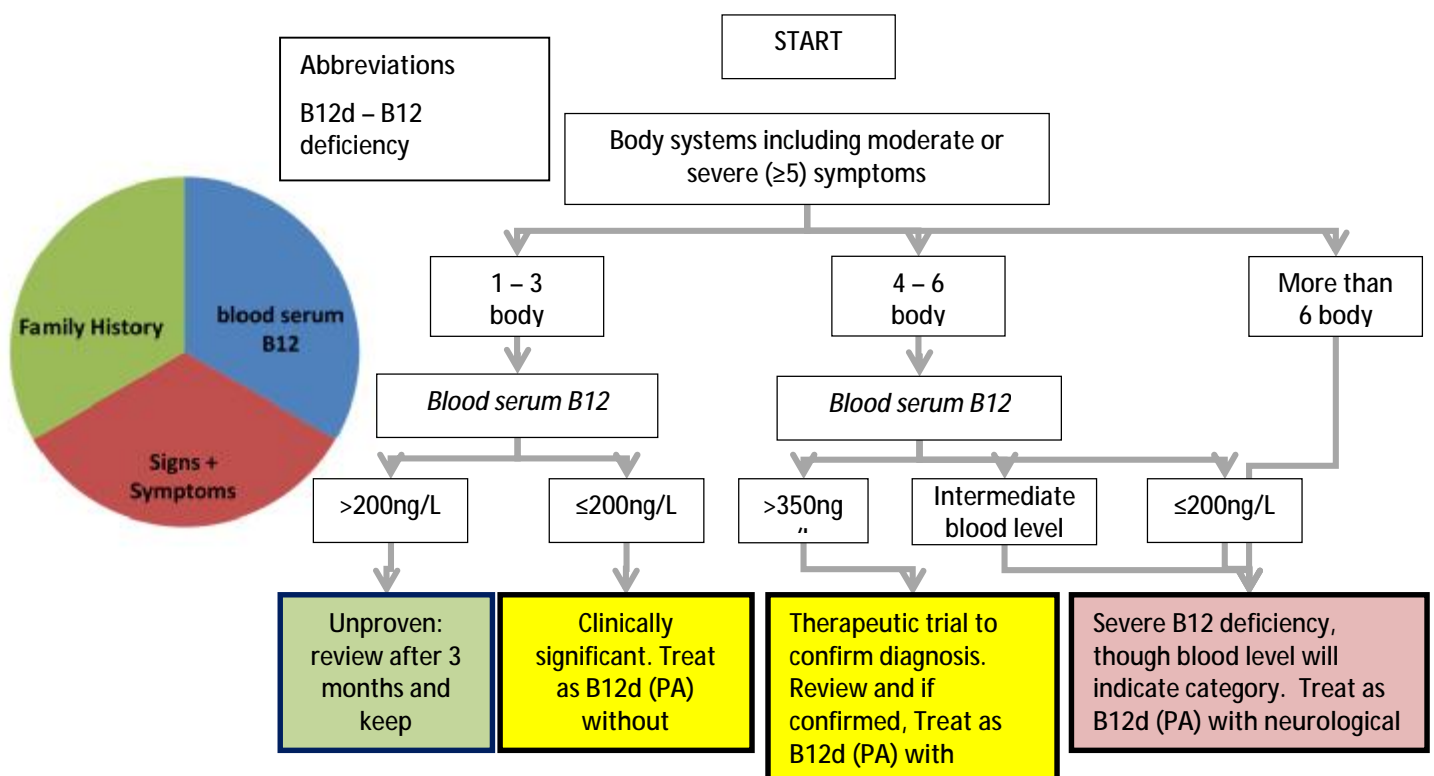
Appendix B – Decision Tree to diagnose / exclude B12 deficiency

Record the MAXIMUM score of any single symptom within a body system, in the yellow header bar of the body system (on the Signs and Symptoms form).

Count scores of severity 5 or above in the yellow Signs and Symptoms bars.

1. B12 deficiency (Pernicious Anaemia) and other macrocytic anaemias without neurological involvement*. Hydroxocobalamin or methylcobalamin Initially 1mg 3 times a week for 2 weeks then 1mg every 2-3 months

2. B12 deficiency (Pernicious Anaemia) with neurological signs and symptoms*. Initially 1mg on alternate days until no further improvement (maximum reversal of neuro-psychiatric signs and symptoms are achieved), then 1mg every 1-2 months.



3. Prophylaxis or Therapeutic Trial. 1mg IM or SC (hydroxocobalamin or methylcobalamin) should be given alternate days for 2 – 3 weeks (6 to 9 doses) followed by 1mg IM or SC⁵ per week for 3 months. If there is no improvement in signs and symptoms after 3 months (13 weeks) then B12 deficiency can be excluded. A therapeutic trial will not interact with other medication given and other treatment can be started at the same time. Review treatment pathway after 3 months.

*Clinically review every 1 or 2 months with or without serum B12 and if clinically indicated increase the frequency to every 2 months, every month or more frequently

⁵ Injections Intra-Muscular (IM, into the muscle of the shoulder or thigh) or Sub Cutaneous (SC, stomach, buttock etc) of hydroxocobalamin or methylcobalamin 1mg/ml or 5mg/ml