

**Rule Category**

AMGL OP

Ref: No.

0007

Version Control

Version No. 0.1

Effective Date

31-03-2023

Revision Date

NIL



المظلة هيلثكير مانجمنت
ALMADALLAH
HEALTHCARE MANAGEMENT

Out Patient - Vitamin D Guidelines

Table of content

Definisions

Signs and symptoms of Vitamin D deficiency in Children & Kids
Applicable Codes for testing

Page 1

ICD Codes

Reference Range for Vitamin D
Vitamin D Level
Investigation and treatment

Page 2

Summary

References

Page 3

1. Definitions

Vitamin D: A nutrient that the body needs in small amounts to function and stay healthy. Vitamin D helps the body use calcium and phosphorus to make strong bones and teeth. It is fat-soluble (can dissolve in fats and oils) and is found in fatty fish, egg yolks, and dairy products. Skin exposed to sunshine can also make vitamin D. Not enough vitamin D can cause a bone disease called rickets.(1)

2. Signs and symptoms of Vitamin D Deficiency in Children

- Deformed bones (bow legs or knock knees)
- Poor growth, delayed fontanelle closure
- Delayed walking or a waddling gait
- Tender or swollen joints, classically the wrists or costochondral junctions
- Bone pain and tenderness
- Delayed eruption of teeth or enamel hypoplasia
- Carpedal spasm, seizures or irritability
- Breathing difficulties (apnea or stridor)

3. Signs and symptoms of Vitamin D Deficiency in Adult

- Bone pain
- Proximal myopathy
- Low bone mineral density +/- fracture
- Laboratory features such as hypocalcemia, hypophosphatemia and increased ALP are often a late presenting feature of vitamin D deficiency

4. Applicable Codes for testing

CPT Code	Decreption
82306	VITAMIN D; 25 HYDROXY, INCLUDES FRACTION(S), IF PERFORMED
82652	VITAMIN D; 1, 25 DIHYDROXY, INCLUDES FRACTION(S), IF PERFORMED

Prepared by :

Dr. Razan Giballah

Reviewed by :

Dr. Ahmed Eldarawi

Approved by :

Dr. Islam Zakaria

Disclaimer

COPYRIGHT © 2023

Almadallah Healthcare Management

ALL RIGHTS RESERVED.

Out Patient - Vitamin D

Incident Examples for ICD codes related to vitamin D deficiency:

Coverage

Vitamin D is test covered for all the policies and the following particular disease medical conditions that may result in Vitamin D deficiency.

- Chronic kidney disease
- Cirrhosis
- Hypocalcemia
- Hypercalcemia
- Parathyroid disorders
- Malabsorption states
- Osteomalacia
- Rickets
- vitamin D deficiency on replacement therapy

Vitamin D ICD codes list

5 - Reference range for Vitamin D

Level	Blood test result
Less than 30 nmol/L =	Vitamin D deficiency.
30 - 50 nmol/L	Insufficiency
Above 50 nmol/L	Sufficient

6- Investigation and treatment in adults initial encounter:

Patient Characteristics	Advice and Management
Healthy, no risk factors, symptom free	<ul style="list-style-type: none"> • No investigations required • Lifestyle advice
Risk factors <ul style="list-style-type: none"> - Breastfed infants - Older adults - People with dark skin - People with conditions that make it difficult to absorb nutrients from food, such as Crohn's disease, ulcerative colitis, and celiac disease. - People who have obesity - People who have had gastric bypass surgery - People with chronic kidney or liver disease - People who take medicines that affect vitamin D levels. 	<ul style="list-style-type: none"> • Lifestyle advice • Supplement all pregnant/breastfeeding women and adults aged over 65 Other individuals with risk factors <ul style="list-style-type: none"> • may choose to take OTC vitamin D* • No investigations required
Risk factors and clinical features OR Risk factors and significant risk of osteoporosis e.g. short gut	Lifestyle advice <ul style="list-style-type: none"> • Investigations: FBC, renal and bone profile, vitamin D • Therapeutic intervention

7-Retesting Vitamin D Levels During Treatment:

Clinical Situation	Recommendation
a. No clinical signs and symptoms	Do not test/retest unless otherwise clinically indicated e.g. refer point D
b. Vitamin D therapy for whatever clinical indication where baseline Vitamin D concentration was sufficient	<ul style="list-style-type: none"> • Do not retest, unless otherwise clinically indicated e.g. refer point D
c. Vitamin D therapy for whatever clinical indication where baseline Vitamin D concentration was low	Do not retest, unless patients symptoms have not resolved / no clinical response or otherwise clinically indicated e.g. refer to point D. Repeats will not be allowed before 3 months. All requests for repeat measurement will be reviewed. Clinical indication for repeat testing should be clearly mentioned on the request form
D - Vitamin D therapy and patient in one of the following categories (usually in conjunction with secondary care): <ul style="list-style-type: none"> • Osteoporosis • Malabsorption (to include cystic fibrosis and coeliac disease) • Chronic hepatic and renal disease • Taking anticonvulsants or similar medications • Children with clinical rickets 	Do not retest, unless patients symptoms have not resolved / no clinical response or otherwise clinically indicated e.g. refer to point D. Repeats will not be allowed before 3 months. All requests for repeat measurement will be reviewed. Clinical indication for repeat testing should be clearly mentioned on the request form

Out Patient - Vitamin D

Summary:

1. In pediatric population , pregnant , breast feeding , geriatric (if no symptoms clinical nor lab) , testing not indicated and proceed with imperial treatment only.
2. In high risk + clinical symptoms +/- lab findings , testing can be approved.
3. In high risk + confirmed labs , testing can be approved.
4. In patient with active disease (osteoporosis/ rekits) testing annually can be approved, to be repeated in view of clinical and symptom response.

Reference:

- a. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/vitamin-d> (1)
- b. <https://www.nbt.nhs.uk/severn-pathology/requesting/test-information/vitamin-d#:~:text=Reference%20range%3A%20Less%20than%2030,for%20almost%20the%20whole%20populaton> (5)
- c. <https://www.isahd.ae/content/docs/DSC-management%20of%20vitamin%20D%20deficiency.pdf>