

## Pathway For Testing and Treatment of Adult Vitamin D Deficiency

### Who to test for vitamin D deficiency?

1. Patients who have unexplained symptoms of widespread musculoskeletal pain and muscle weakness – **follow Pathway One**
2. Patients with one or more of the following clinical features regardless of symptomology – **follow Pathway Two**
  - Osteoporosis
  - History of fragility fracture in patients aged less than 65 years or as directed by the osteoporosis service
  - Taking antiepileptic medication specifically sodium valproate, phenytoin, carbamazepine, primidone and phenobarbital
  - Malabsorption state (e.g. inflammatory bowel disease)

#### Note:

- A. Generally healthy adults in the following risk categories should NOT be tested routinely for vitamin D but should be advised to purchase vitamin D supplements over the counter (dose of 400 units daily) and given lifestyle advice to optimise their vitamin D status:
  - People aged 65 years and over
  - Pregnant women
  - Breastfeeding women
  - People who are not exposed to much sun, for example, those who cover their skin for cultural reasons, those who are housebound or confined indoors for long periods including care home residents
  - People who have darker skin (e.g. people of African, African-Caribbean and South Asian origin)
- B. Patients in the following risk categories should be prescribed vitamin D 800 units daily (with calcium if dietary intake of calcium is poor) without the need for vitamin D testing unless directed by the Specialist:
  - Patients taking oral glucocorticoids
  - Patients with a history of fragility fracture and aged 65 years or older

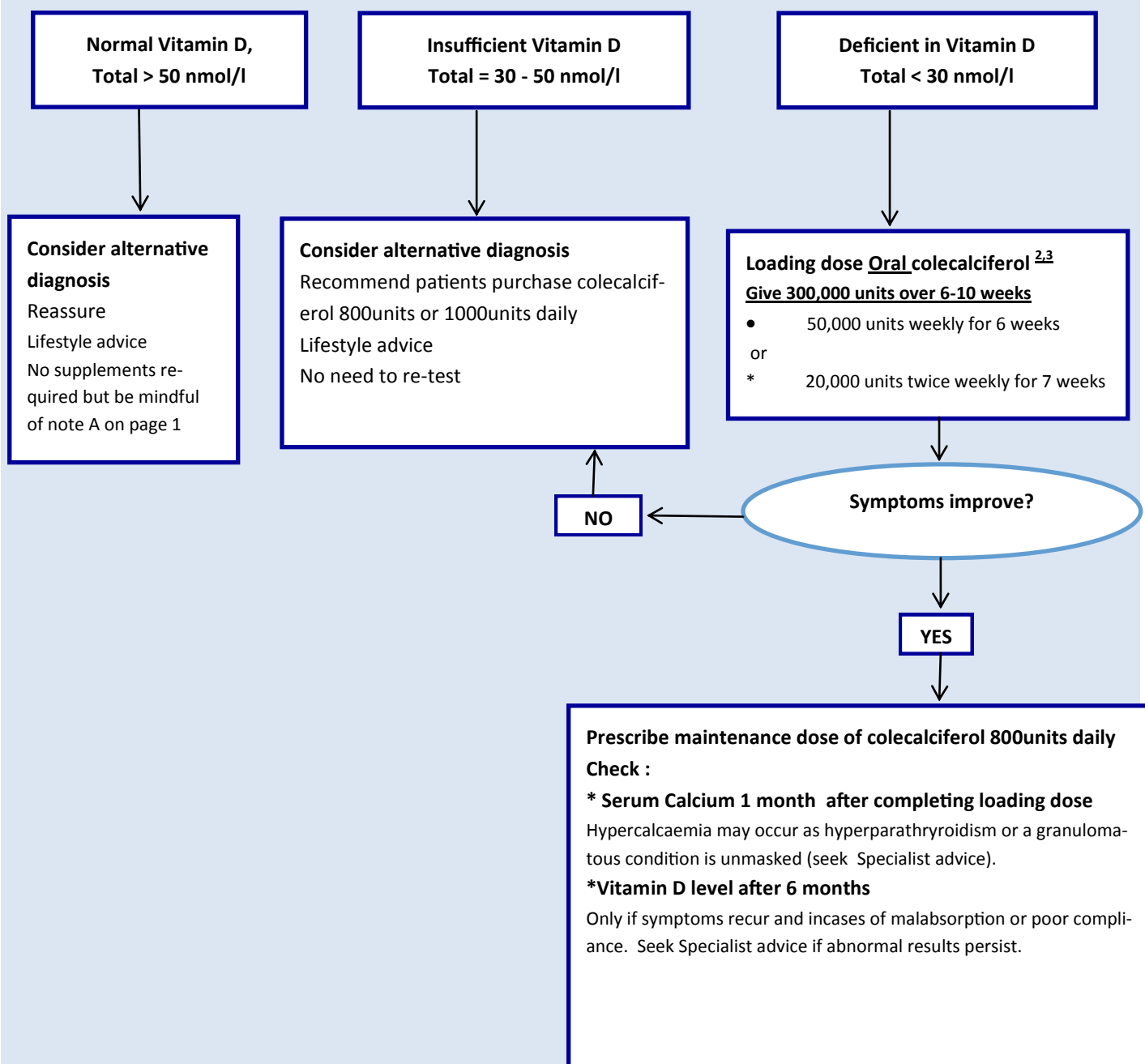
1. Department of Health Guidance from the Chief Medical Officers for advice regarding healthy individuals in population risk groups.

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2. National Osteoporosis Guidance for the detailed national guidance regarding vitamin D supplementation in healthy individuals in population risk groups. <http://www.nos.org.uk/document.doc?id=1352>

3. Preparations for the Treatment of Vitamin D Deficiency and Insufficiency (for further information regarding approved standard and high dose supplements, including suitability for vegetarians, vegans and nut allergy sufferers)

**PATHWAY ONE: Test vitamin D level in patients with unexplained symptoms of widespread musculoskeletal pain and muscle weakness**



**PLEASE NOTE:**

**For patients with Cystic Fibrosis** – ask a member of the Cystic Fibrosis Team

**For patients with eGFR below 30** – seek advice from a Nephrologist

**For pregnant women** – do not exceed 400 units vitamin D daily, seek specialist advice if vitamin D level remains below 30nmol/l after 8 weeks treatment

**Seek advice from the osteoporosis team, (Haywood Hospital) or an endocrinology consultant if vitamin D level remains below 30nmol/l despite adherence to supplements.**

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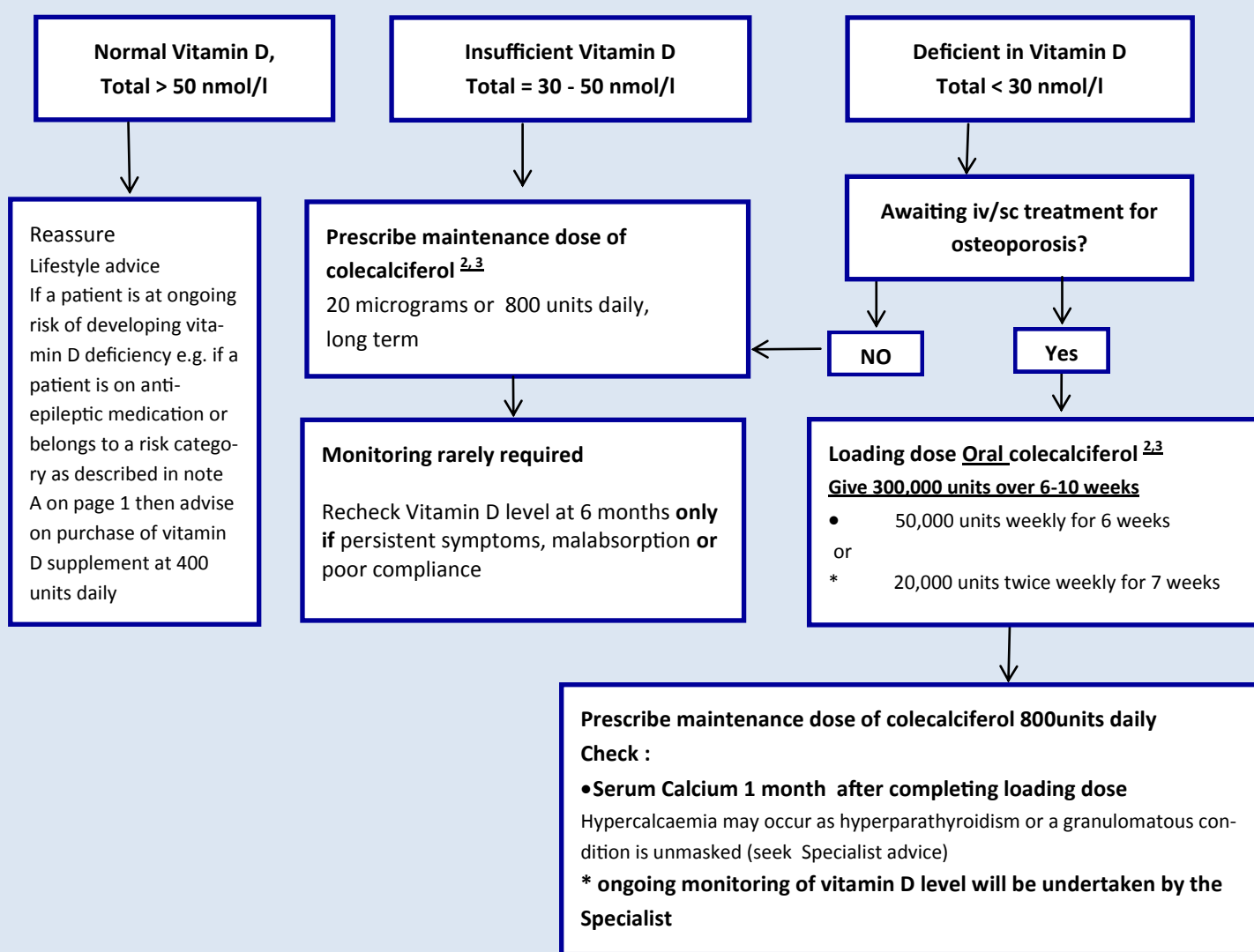
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**PATHWAY TWO: Test vitamin D in patients with one or more of the following clinical features regardless of symptomology:**

- Osteoporosis
- History of fragility fracture in patients aged less than 65 years
- Taking antiepileptic medication specifically sodium valproate, phenytoin, carbamazepine, primidone and phenobarbital
- Malabsorption state (e.g. inflammatory bowel disease)



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## Prescribing advice

### 1) Loading dose colecalciferol preparation:

**Primary Care & Secondary Care: Invita D3<sup>®</sup> 25,000 units per ml. Each pack contains 3 amps of 1ml each**

### 2) Maintenance Vitamin D Supplementation

Without calcium : 800-2000 units of colecalciferol per day

Over the counter preparations are usually available as 400 units and 1000 units

#### If prescription is required:

Primary care: Thorens D3<sup>®</sup> Solution 10,000 units/ml (10ml $\equiv$ 500 drops $\equiv$ 4 months) (1 drop  $\equiv$ 200units)  
(4 drops daily)

Secondary care: Fultium-D3<sup>®</sup> 800 units (1 capsule daily)

With calcium: consider combined calcium & vitamin D combination ONLY if poor dietary calcium intake and no contraindications to calcium supplementation

800-1000 units of vitamin D and 500- 1200 mg of elemental calcium per day

E.g. Adcal-D3<sup>®</sup> chewable tablets (1 tablet twice daily)

Accrete-D3<sup>®</sup> (1 tablet twice daily)

Adcal-D3<sup>®</sup> caplets (2 tablets twice daily – *please note strength*)

**Note:** 10mcg = 400 units for replacement; 2.5nmol = 1ng/ml for 25OHD measurement

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