Key Recommendations for Vitamin D in Tasmania

1. Clinicians may recommend safe sun exposure that takes into consideration UV index and skin type as a key way to boost and maintain vitamin D levels.

Testing Recommendations

2. Routine testing of vitamin D levels in all patients is unnecessary and undesirable. Targeted testing for low serum 25(OH)D is recommended for groups with risk factors for moderate-severe vitamin D deficiency.

3. Testing 25(OH)D is recommended for the following groups
   - Patients with signs, symptoms or planned treatment of Vitamin D deficiency
     - Osteomalacia or rickets or osteoporosis or osteopenia
     - Unexplained proximal limb or muscle pain
     - Unexplained bone pain, unusual fractures or other evidence suggesting metabolic bone disease
     - Unexplained raised serum alkaline phosphatase, or low serum calcium or phosphate
   - People (all ages) with naturally dark skin (Fitzpatrick skin type V and VI)
   - People with chronic and severe lack of sun exposure eg – women who wear full body coverage clothing for religious or cultural reasons
   - Infants of mothers with demonstrated vitamin D deficiency
   - Pregnant women with risk factors for moderate-severe deficiency (at the first antenatal visit)

4. Consider testing the following groups at risk of moderate-severe vitamin D deficiency:
   - People (all ages) with conditions or medications affecting vitamin D metabolism
     - renal disease
     - end-stage liver disease
     - drugs that increase degradation such as rifampicin and enzyme-inducing antiepileptics: phenobarbitone, carbamazepine, phenytoin,
     - fat malabsorption syndromes e.g. cystic fibrosis, coeliac disease, inflammatory bowel disease
   - People (all ages) who spend most of their time indoors or who have limited exposure of their skin to sunlight for various reasons, which may be:
     - Chronic illness /hospitalisation
     - Complex disability – people with low mobility, who are frail or housebound, including people who are bed-ridden or chair bound
     - People who avoid sun exposure because they have had skin cancer, skin damage from the sun or are on photosensitising medications
   - Exclusively breast fed infants who fall into at least one of the risk categories above

Management Recommendations

5. For those with mild vitamin D deficiency (30-49nmol/L) who are not at risk of moderate – severe deficiency, safe sun exposure and dietary sources of vitamin D are recommended. Consider supplementation if clinically appropriate. There is some emerging evidence for improving vitamin D levels following weight loss in those who are overweight or obese.

6. For those with mild vitamin D deficiency (30-49nmol/L) AND a risk of moderate-severe deficiency supplements and safe sun exposure (where applicable) are recommended

7. Those with moderate-severe deficiency (<30nmol/L) require treatment with vitamin D supplements.

Practice tips

1. Keep the Fitzpatrick skin type chart handy to help you identify your patient's skin type. This will assist with appropriate safe sun exposure messages.

2. Routine vitamin D testing of the general Tasmanian population at risk of mild vitamin D deficiency is not justified – encourage safe sun exposure and dietary sources that contain vitamin D

    a. For moderately fair skinned people exposing as much skin as practical for 10-15mins, 1-2 times a day in summer (avoiding times when UV is 9 or above) and longer in winter is likely to be helpful in maintaining adequate vitamin D levels.
    b. Food sources can help to maintain vitamin D levels – encourage a varied and balanced diet and include sources of vitamin D – oily fish – salmon, sardines, tuna; eggs; UV exposed mushrooms and dairy or soy products with vitamin D added.

3. Be aware of seasonal variation in vitamin D levels when interpreting results- in Tasmania serum levels are on average 30nmol/L lower at the end of winter when compared to summer