Laboratory News
Please circulate to all members of staff within the practice
NHS Greater Glasgow and Clyde
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Vitamin D Measurement

Clyde Sector

Vitamin D is synthesized from cholesterol by the action of sunlight on skin. It is also found in oily fish, some plants and may be added to foodstuffs. Low sunlight levels make it difficult to synthesize sufficient Vitamin D, and deficiency is common. Those whose exposure to sunlight is limited and those with darker skin are at increased risk of deficiency.

Deficiency causes osteomalacia in adults but a lesser deficiency may be symptomless.

Toxicity is rare but serious. It is unlikely that hypercalcaemia, bone demineralisation, soft tissue calcification and renal damage would be caused by over the counter supplements taken as advised.

Measuring Vitamin D is often unnecessary depending on patient symptoms and other biochemistry. Deficient patients may have low serum calcium, though secondary hyperparathyroidism may maintain calcium within the normal range. Serum phosphate tends to decrease and ALP increase.

Widespread vitamin D requesting is not warranted, for most patients suspected of having, or who are at risk of vitamin D deficiency, a trial of over-the-counter Vitamin D is appropriate. Further investigation is only required for those failing to respond (clinically or biochemically) after 10-12 weeks.

Clinical situations in which vitamin D requesting is required are:

- Investigation of primary hyperparathyroidism
- Prior to bisphosphonate therapy
- Symptomatic hypocalcaemia/osteomalacia
- Failure to respond to Vitamin D3 replacement
- Patients with complex nutritional needs e.g. long term TPN, following bariatric surgery, conditions of malabsorption etc.

It is unnecessary to measure Vitamin D after initiation of treatment unless symptoms persist. For those with e.g. complex nutritional requirements, annual testing is recommended.

Malaria Testing

NHSGGC Clinical guideline – 'Malaria Treatment in Adults 18 years' and over[1] states:

'Malaria should be suspected in any patient with a fever/ history of fever who has returned from or previously visited a malaria endemic area even if they have taken malaria prophylaxis. It is essential to obtain information on the country and area of travel (including any stop-overs) and details of any malaria prophylaxis regimen (including drug choice, dose, adherence etc.).'

Prior to requesting a malaria test please use the resource below to determine if the patient has returned from an endemic area:
https://www.fitfortravel.nhs.uk/destinations.aspx [2]
This will ensure inappropriate tests are not requested.

1. *NHSGGC CLINICAL GUIDELINE Malaria Treatment in Adults 18 years and over [Internet]. [cited 2024 Oct 10]. Available from: https://rightdecisions.scot.nhs.uk/media/e32excun/591-malaria-treatment-adults-18-years.pdf*
2. *Malaria [Internet]. www.nhsinform.scot. Available from: https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/malaria/*

We would be delighted with your feedback on issues that you would like us to address in the newsletter. Comments or suggestions can be sent to: Dr Helen Falconer (Helen.Falconer3@ggc.scot.nhs.uk) or Martin Wight (Martin.Wight@ggc.scot.nhs.uk)