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Welcome to this 'plague' year edition of The Scope.

It feels strange to be doing anything so normal and routine as this whilst the world around us remains so

topsy-turvy, but life goes on and Labtests and Northland Pathology are now operating essentially at business as usual with COVID-19

testing (and all its peaks and troughs) occurring in parallel.

I would like to take this opportunity to thank and acknowledge all the community providers who have responded to the challenges of these last few months and recognise that there are likely to be further bumps along the road over the next few months and years.

Beyond that I have no wish to bore you with

any further COVID-19 related information as we have put out many laboratory updates over the last few months, and I am sure you have had information overload from many sources, so will sign off for now.

Best wishes

Dr Gary McAuliffe
Microbiologist and
Medical Director
Labtests

When a positive result means no problem:

Antinuclear antibodies (ANA) and DFS 70

From the 6th of July 2020 Labtests have been reporting the dense fine speckle (DFS-70) antibody pattern if detected during antinuclear antibody (ANA) testing and confirmed by the Euroline IgG immunoassay. High titre positive DFS-70 autoantibodies reported in isolation (i.e. with no evidence of antibodies to other extractable nuclear antigens (ENA)) are most likely to mean that there is NO underlying systemic rheumatic disease. Therefore, if this pattern is the sole reason why the patient has a positive ANA, they can be reassured that they are unlikely to have a connective tissue or other autoimmune disease.

We have validated our DFS-70 assay against the Bioflash assay used

by Wellington SCL, and will be reporting results similarly. If DFS-70 has not been detected before, the ANA result will be held until we have the DFS-70 and ENA results. If the sample is DFS-70 positive and ENA negative, the following comment will be issued:

Anti-DFS-70 has been confirmed. When this pattern occurs in the absence of other disease-related autoantibodies (e.g. anti-dsDNA and ENA) it is non-specific and not associated with a systemic autoimmune disease.

Dr Miriam Hurst
Immunopathologist



Requesting Calcitriol (1,25OH Vitamin D₃)

Summary:

25OH-vitamin D (calcidiol) is the appropriate test for measuring adequacy of vitamin D stores. 1,25OH-vitamin D (calcitriol) is often misleading other than in very specific situations, and always requires specialist approval.

If requesting publicly funded vitamin D test, please ensure that your laboratory request form specifies the appropriate form of vitamin D (almost always 25OH-vitamin D) and provide appropriate clinical details.

Difference between 25OH-VitD₃ and 1,25OH-VitD₃ (Calcitriol)

Vitamin D (Vit D) is a fat soluble vitamin that, together with parathyroid hormone, plays an important role in calcium, phosphate and bone metabolism. The active form 1,25OHVitD₃, also known as *calcitriol*, is formed from the precursor 25OHVitD₃ in the kidneys facilitated by the enzyme 1 α -hydroxylase (CYP27B1).

25OHVitD₃, also known as 25OH cholecalciferol and *calcidiol*, is the inactive (pre-hormone) form which makes up the main pool for the vitamin in the body. It is formed from the hydroxylation of VitD₃ by 25-hydroxylase (CYP2R1) in the liver. 25OHVitD₃ is present in the plasma in nanomolar (10⁻⁹) concentrations. Calcitriol on the other hand is in picomolar (10⁻¹²) concentrations. 25OHVitD₃ has a much longer half-life than that of calcitriol, about 15-21 *days* versus 4 *hours* respectively.

Calcidiol, 25OHVitD₃, the 'pre-hormone', is the best indicator of vitamin D status, and is almost always the test to request and to measure when assessing vitamin D sufficiency or excess. Levels of 25OH-VitD₃ reflect body stores much better than calcitriol, and have been shown to correlate with Vit D sufficiency, and with calcium, phosphate and parathyroid hormone pathologies. The assay is technically easier because of the higher concentrations of 25OHVitD₃ compared to calcitriol.

Calcitriol (1,25OH-vitamin D) levels do not reflect Vit D reserves. In deficiency of Vit D, calcitriol is often normal or even elevated because its production is induced by parathyroid hormone, potentially providing a misleading interpretation. There are only a few rare indications for measuring calcitriol namely when abnormalities of calcium/phosphate are not explained by either PTH, or 25OH-vitamin D and where an unusual cause is suspected, e.g. granuloma-

tous disease, some lymphomas, oncogenic osteomalacia, and rare inherited disorders of Vit D and phosphate metabolism.

Please ensure the correct test is requested

Requests for calcitriol are vetted by a pathologist at Labplus; those approved are then sent overseas for testing. Requests that are rejected because of insufficient or inappropriate clinical details. Samples are stored at Labplus for three weeks, and a comment is released advising the requestor to contact the pathologist if it is still needed.

Recently, LabPlus has been getting an increasing number of requests for calcitriol. Upon vetting it becomes clear that by far the majority of calcitriol requests are actually meant to be for 25OHVitD₃ (calcidiol). This causes unnecessary delays for patient care. This confusion may be contributed to by the appearance of calcitriol as the first orderable test for VitD on the general practice ordering system.

Apart from rare situations as highlighted above, 25OHVitD₃ (calcidiol) and not calcitriol should be requested. If in doubt please call the on call chemical pathologist to discuss. In all cases please include clinical details on the request form to streamline vetting and facilitate timely testing. If possible, it may be prudent to consider modifying the ordering system in your practice to help ask for the relevant test.

Note that all requests for publicly funded testing of 25OH vitamin D (calcidiol) at LabPlus also require appropriate clinical details as listed in the LabPlus Test Guide, available at: ([www.https://testguide.adhb.govt.nz/EGuide/](https://testguide.adhb.govt.nz/EGuide/)).



Dr Samarina Musaad



Dr Charles Ng



Dr Cam Kyle

References

The American Family Physician. Choosing Wisely: Don't routinely measure 1,25-dihydroxyvitamin D unless the patient has hypercalcaemia or decreased kidney function. <https://www.aafp.org> accessed June 26th 2020

Holick MF, Binkley NC, Bischoff-Ferrari HA et al. Evaluation, Treatment, and Prevention of Vitamin D Deficiency: an Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab* 2011; 96(7):1911–1930

Secure Digital Communications

Replacement of Faxing

In June 2019 the Ministry of Health and Accident Compensation Commission released a joint communique defining secure communication within the New Zealand health sector, specifically in regards to email and faxing.

The two recommendations are:

- All emails be transmitted using Transport Layer Security (TSS) no later than January 2020.
- All analogue faxing to be migrated to a fully digital security-assessed communications solution such as email no later than December 2020.

Healthscope has complied with the first recommendation and has notified the Ministry of Health as requested.

To implement the second recommendation, Healthscope will be phasing out all faxing, including faxing of laboratory re-

sults, by the end of this year and will be offering a secure email alternative. We will continue to offer other result delivery methods including HL7 electronic results.

HL7 electronic results are the only delivery method where the laboratory is notified that you have received the result and, as such, is our preferred option.

Over the next few months you will be contacted by the laboratory to obtain the necessary information to enable us to send you secure emails. This may be a good opportunity for you to review your processes for receiving such results.

In addition to laboratory results, there may be other exchanges with the laboratory involving faxing, for example requesting a home visit; each laboratory will be reviewing these and providing you with the alternative solution.

Brent Glanville
Healthscope CIO

Notice of Chemistry Platform Change to Roche

In late 2020 Labtests will be changing over its mainstream autoanalyzer platforms from the Siemens Advia/Centaur to Roche Cobas technology. This decision was not made lightly, as both Siemens and Roche are major international suppliers, but will result in a number of technical and performance benefits.

Importantly, Roche is by far the major supplier in New Zealand, with the majority of biochemistry tests performed in Auckland hospital (LabPlus), Middlemore, all Northland laboratories, and Waikato hospital performed using Roche, as well as most of New Zealand. Waitemata (North Shore and Waitakere hospitals) will continue to use Siemens technology.

This is a major change, and Labtests is already well into the planning and setup phases of this complex operation to enable a seamless transition. In later stages careful work will be done to compare and validate results using the new platform, as well optimise IT functionality and result delivery.

For the large majority of autoanalyzer tests you will be unlikely to notice much if any difference. However, there will inevitably be differences in some results for patients who are being serially monitored, just as from time to time we notice small differences in results even when changing reagent lots for the same manufacturer.

Labtests constantly compares our results with other labs in the Auckland region (ARQAG group), New Zealand (Waikato survey), and internationally (RCPA QAP programme, and others overseas), and this will continue.

There will be a number of changes in certain tests which you will notice:

- ◇ Cardiac Troponin I measurements will be replaced by Troponin T, which is the assay used in LabPlus and Middlemore hospitals (Waitemata will continue to use Siemens Vista TnI). Where the same assay is used in the community and the hospital, this will enable much better interpretation of changes in troponin with time between samples. Our experience also suggests the Roche TnT assay is less affected by interferences than the Siemens TnI assay.
 - ◇ NTProBNP measurements will be 20% lower using the Roche assay. Clinical cutpoints will change, and will be identical to those used in LabPlus.
 - ◇ PTH measurements will be 40% lower using Roche. The reference interval will also change appropriately and be identical to LabPlus.
- Continued over.....

Notice of Chemistry Platform Change to Roche, continued.....

- ◇ CEA, which has always been done at LabPlus using Roche, will be measured at Labtests also using the Roche assay. Results will accumulate serially in Testsafe to provide continuity.
- ◇ Some other tests will need rebaselining during the cross-over. For example, FSH and LH measurements, including rapid turnaround for fertility practices, will change to the new assay, as will

hCG measurements. In some cases cross-over analyses will be performed for the necessary time.

Labtests will provide further updates as the development and validation of the new platform progresses. If you wish to discuss further please contact one of the Labtests Chemical Pathologists.



Labtests has received bouquets and messages of appreciation from practitioners, medical practices and patients for the services provided during the *COVID-19* lockdown and subsequent testing.

This has been greatly appreciated by all our staff who have worked very diligently to keep our service running with as little disruption as possible.



Labtests Key Contacts



Labtests Services	(09) 574 7399	
Results	Press '1'	24 hours/7 days per week
Courier	Press '2'	24 hours/7 days per week
Home Visits	Press '3'	Mon-Fri: 8:00am to 6:00pm Sat: 8:00am to 12:00pm
Special Test Bookings	Press '4'	Mon-Fri 8:00am to 6:00pm
Other Enquiries	Hold the line	Mon-Fri 7:00am to 11pm Sat-Sun 8:00am to 7:00pm
ADD ON TESTS	To add test/s to an existing patient request form, Press '1' to speak to our call centre staff.	Press '1' Note: some add on tests may require pathologists approval.
eOrders Helpline	Email: helpdesk@eorder.co.nz	0508 37 37 83
Dedicated line for practitioners to access all results (24/7)	(09) 574 7398	

Labtests Pathologists		Medical Director:	021 0215 7069
		Dr Gary McAuliffe	Gary.mcauliffe@labtests.co.nz
Chemical Pathologists		Haematologists	
Dr Charles Ng (09) 574 7399 charles.ng@labtests.co.nz	Dr Cam Kyle (09) 574 7399 cam.kyle@labtests.co.nz	Dr Fransisca De Silva (09) 574 7399 fransisca.desilva@labtests.co.nz	Dr Lesley Overend (09) 574 7399 lesley.overend@labtests.co.nz
Dr Samarina MUSAAD (09) 574 7399 samarina.musaad@labtests.co.nz	Dr Melissa Yssel (09) 574 7399 melissa.yssel@labtests.co.nz	Dr George Chan (09) 574 7399 george.chan@labtests.co.nz	Dr Lochie Teague (09) 574 7399 lochie.teague@labtests.co.nz
Microbiologists		Immunopathologist	
Dr Gary McAuliffe (09) 574 7399 gary.mcauliffe@labtests.co.nz	Dr Matt Blakiston (09) 574 7399 matt.blakiston@labtests.co.nz	Dr Max Bloomfield (09) 574 7399 maxim.bloomfield@ccdhb.org.nz	Dr Miriam Hurst (09) 574 7399 miriam.hurst@labtests.co.nz

Pathology numbers	
Biochemistry: DDI: 09 574 7254 // Fax: 09 574 7308	Note: When faxing to these numbers please use a header sheet and our team will endeavor to contact you that day. Do not hesitate to phone the Pathologist directly.
Microbiology: DDI: 09 574 7348 // Fax: 09 574 7344	
Haematology: DDI: 09 574 4728 // Fax: 09 574 7308	
Duty Scientist: DDI: 09 574 7382 // Fax: 09 574 7308	

Client Services		General enquiries: ita.clientservices@labtests.co.nz
Client Services Consultant	Quality Administration Officer	Quality Manager
Mala Govender (09) 574 7306// 021 407 300 mala.govender@labtests.co.nz	Lorraine Elliot (09) 574 7379// 027 801 8184 lorraine.elliott@labtests.co.nz	Saad Mansour (09) 574 7302 // 021 021 63072 Saad.mansour@labtests.co.nz



Anatomic Pathology Service
Mount Wellington

The contact numbers for all enquiries related to Anatomic Pathology Mt Wellington are:
Phone (09) 302 0516 Fax: (09) 302 0517

Updated: 17/7/20