



Laboratory *update*

October 7, 2020

Changes coming to Chemistry Procedures

Thyroid Function Testing algorithm update to match BC Guidelines

With a target date of October 14, 2020, Island Health Laboratories will be revising the [Thyroid Function Testing algorithm](#) used in the laboratory to align with the updates to the [BC Guidelines for Thyroid Function Testing](#). This guideline was fully updated in 2018, with some changes made to the algorithm recently. Please ensure a diagnosis is indicated if multiple thyroid tests are requested for proper reflexing of tests.

Removing pO_2 requests from Venous Blood gas samples

Island Health Laboratories will soon be removing pO_2 results from venous blood gas reports. There has been much confusion around the discrepancy between venous pO_2 values (pVO_2) and arterial pO_2 values (paO_2), even on samples collected very close in time, across the Island.

Some of the reasons for the difference are:

- The nature of venous samples – oxygen has already been extracted by tissues by the time blood reaches venous circulation so allows for misinterpretation.
- Venous samples are often submitted in a vacutainer tube. If the tube is not filled completely, the sample will be exposed to excess oxygen and result in a falsely high pVO_2 level

To reduce confusion, the laboratory will no longer be reporting pO_2 on these samples. Arterial pO_2 is the gold standard for oxygenation assessment. Arterial samples are collected by syringe, ensuring the most accurate results, without oxygen contamination. Capillary pO_2 will remain available.

Please see over for further information...



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Update to concurrent Amylase and Lipase requests

Island Health Laboratories will soon be removing simultaneous testing of Amylase and Lipase testing on inpatients. This process has been in effect for outpatient samples for years with the comment “Amylase cancelled based on MSC and MAC guidelines”.

Many studies have demonstrated that Lipase is the preferred diagnostic test for assessing acute pancreatitis over Amylase.

A retrospective review of requests between January 1 and April 27, 2020 showed 302 instances where Lipase and Amylase were ordered concurrently. A medical review supported the use of Lipase only as the Amylase result was not informative in any of the cases.

Serum amylase would be the most appropriate test (as long as Lipase is not requested at the same time) when investigating cases such as macroamylasemia, parotitis, and viral illness.

***For questions regarding this communication, please contact the
Medical Biochemist on Call***