

Laboratory Services Operational Update

Alpha 1 Antitrypsin Phenotype Testing

Key Messages

Effective July 3, 2012, *DynaLIFE_{Dx}* will provide Alpha 1 Antitrypsin Phenotype testing for the Province of Alberta. The testing performed at *DynaLIFE_{Dx}* will use an isoelectric focusing immunofixation methodology.

Background

Deficiencies in Alpha 1-Antitrypsin (A1AT), the major serum serine protease inhibitor, are hereditary and may lead to lung damage and contribute to liver disease. In conjunction with A1AT Quantitation testing, the detection of A1AT phenotypes assists in identifying individuals who might be at risk for these diseases. Currently, the A1AT Phenotyping test is referred out of the Province.

How this will impact you

Ordering Guidelines and Testing Algorithm for A1AT Phenotyping

If	And	Then
A1AT Quantitation is performed at Calgary Laboratory Services, <i>DynaLIFE_{Dx}</i> , Medicine Hat Diagnostic Laboratory or University of Alberta Hospital	and the result is less than 0.9 g/L	Samples will be forwarded to and / or processed for A1AT Phenotype testing at <i>DynaLIFE_{Dx}</i>
A1AT Quantitation has been performed at another referral lab	A1AT Phenotyping is requested	Provide the results and units of reporting on the requisition. Samples will be forwarded to <i>DynaLIFE_{Dx}</i> for A1AT Phenotype testing
Genotyping has been performed at another referral lab	S and/or Z alleles have been detected with A1AT Phenotyping request	Samples will be forwarded to <i>DynaLIFE_{Dx}</i> for A1AT Phenotype testing
A1AT Phenotyping is requested	A1AT Quantitation has not been ordered or there is no result available	The A1AT Quantitation test will be performed prior to processing for A1AT Phenotyping. If the result is less than 0.9 g/L, forward sample to <i>DynaLIFE_{Dx}</i> for A1AT Phenotype testing.
A1AT Phenotyping is requested for familial studies	A1AT Quantitation has not been done or the result is greater than or equal to 0.9 g/L	Indicate "For familial studies" on the requisition and have the ordering clinician consult with the Clinical Chemist listed below.

Specimen Requirement - Refrigerated serum. If the specimen will not be received at *DynaLIFE_{Dx}* within 3 days, aliquot, freeze, and transport the sample frozen.

Reporting – Alpha 1 Antitrypsin Phenotype reports will include interpretive comments provided by the Clinical Chemist. Reports will be available in Netcare.

Inquiries and feedback may be directed to:

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