



Leaders in Laboratory Medicine

DATE:	2022 September 19	
TO:	All Zones: Physicians, Nurses and Healthcare Practitioners, and all Laboratory Services Staff	
FROM:	Alberta Precision Laboratories (APL)	
RE:	Lipase and lactate dehydrogenase (LD) updated reference intervals and implementation of lipase correction factor	

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- Effective **September 27, 2022**, new provincially harmonized reference intervals will be implemented for lipase and LD.
- A provincial lipase correction factor will be employed to produce equivalent lipase test results across the province and enable the use of harmonized reference intervals.

Background

- New provincial reference intervals are evidence-based and are derived via statistical analysis of provincial population data.
- Due to differences in instrumentation, lipase concentration differs significantly between laboratories across the province. Introducing a provincial lipase correction factor will improve result interpretation and enable the use of harmonized reference intervals.

How this will impact you

- Reference intervals for lipase and LD will be updated (see Appendices)
- An interim comment will be added to lipase and LD reports specifying that the updated reference interval and/or employed correction factor reflects provincial harmonization efforts.
- As a result of the lipase correction factor and depending on the patient location, an increase of up to 40% (DynaLIFE and some Northern sites), decrease up to 80% (some rural areas), or no change (urban and regional hospitals) in lipase may be observed compared to current results.

Action Required

- Be aware of the update to lipase and LD reference intervals
- Be aware of the potential change in lipase test results
 - Due to the potential magnitude of change in lipase results introduced by the provincial correction factor, consider re-establishing baseline values for lipase if clinically indicated.
 - For site-specific information, please contact your local laboratory.

Questions/Concerns

- Jessica Gifford, Clinical Biochemist, Calgary Zone, APL (403) 770-3779, Jessica.Gifford@aplabs.ca
- Heather Paul, Clinical Biochemist, South Zone, APL (403) 770-3634, Heather.Paul@aplabs.ca
- Yury Butorin, Clinical Biochemist, Central Zone, APL (403) 406-5633, Yury.Butorin@aplabs.ca
- Albert Tsui, Clinical Biochemist, Edmonton Zone, APL (587) 782-2674, Albert Tsui@aplabs.ca
- Josh Raizman, Clinical Biochemist, Edmonton Zone, APL (780) 718-2402, Josh.Raizman@aplabs.ca
- Dustin Proctor, Clinical Biochemist, North Zone, APL (403) 512-8465, Dustin.Proctor@aplabs.ca
- DynaLIFE Clinical Chemists, (780) 451-3702 ext. 3572, clinical.chemists@dynalife.ca



Approved by

- Hossein Sadrzadeh, PhD, Clinical Section Chief, Clinical Biochemistry, South Sector, APL
- Paul Klonowski, MD, Associate Medical Director, South Sector, APL
- Kareena Schnabl, PhD, Clinical Section Chief, Clinical Biochemistry, North Sector, APL
- Susan Nahirniak, MD, Associate Medical Director, North Sector, APL
- Mathew Estey, PhD, Director of Clinical Chemistry, DynaLIFE Medical Labs
- Erene Farag, MD, PhD, Provincial Medical Director, DynaLIFE Medical Labs



Appendices

A. New Lipase Reference Intervals (M/F/U/X)

Age	Reference Interval (U/L)
0 up to 18 years	<50
≥18 years	<80

B. New Lactate Dehydrogenase Reference Intervals (M/F/U/X)

Age	Reference Interval (U/L)
0 up to 1 year	200-420
1 year up to 10 years	140-320
10 years up to 15 years	120-300
≥15 years	120-250