



Changes to Urinalysis Platform – September 2021

LifeLabs is upgrading our macroscopic and microscopic urinalysis instrumentation at our labs in British Columbia and Ontario, starting September 2021. The new instrumentation has shown similar or improved precision, accuracy, and sensitivity during our validation. With the change to this new instrumentation, LifeLabs is aligning our urinalysis processes and reporting on a national scale. LifeLabs laboratories that are currently performing manual microscopy will now switch to automated microscopy.

What does this change mean for you?

The new platform will enable us to remove obsolete manual processes and deliver improved clinical information to our customers through standardized reports and reference intervals. More information about the changes between our current and new reporting structures is available on LifeLabs.com.

When will this new instrumentation go live?

We are planning for this new instrumentation to go live on Vancouver Island, BC on September 13, 2021. For the rest of BC, the new instrumentation will go live within the next few months. Once implemented at each site, we will include a comment on our reports indicating the new methodology.

We are very excited about this implementation and the benefits it will deliver to our customers. If you have any questions or concerns, please don't hesitate to reach out to me at 1-800-431-7206.

Sincerely,

Cheryl Tomalty PhD, FCACB
Clinical Biochemist

Appendix A - Chemical: Glucose

	Current			NEW
Standard units	LifeLabs Lower Mainland CCB Velocity mmol/L	LifeLabs Vancouver Island Siemens Atlas mmol/L	LifeLabs Region PG Kamloops Terrace Roche 411 mmol/L	(for all of BC LifeLabs) Siemens Novus mmol/L
Negative	<2.8	<6	Negative	Negative (Reference Interval)
Trace	2.8	<6	3	5.5
1+	8.3	14	6	14
2+		28	17	28
3+	≥28	≥55	56	≥55

Leukocytes (WBC)

	Current			NEW
Standard Units	LifeLabs Lower Mainland CCB Velocity Leu/uL	LifeLabs Vancouver Island Siemens Atlas	LifeLabs Region PG Kamloops Terrace Roche 411 Leu/uL	(for all of BC LifeLabs) Siemens Novus WBC/uL
Negative	<25	Negative	Negative	Negative (Reference Interval)
Trace	25	Trace	25	15
1+	75	1+		70
2+	250	2+	100	125
3+	500	3+	500	500

Protein

	Current			NEW
Standard Units	LifeLabs Lower Mainland CCB Velocity g/L	LifeLabs Vancouver Island Siemens Atlas g/L	LifeLabs Region PG Kamloops Terrace Roche 411 g/L	(for all of BC LifeLabs) Siemens Novus g/L
Negative	<0.3	<0.3	Negative	Negative (Reference Interval)
Trace		<0.3	0.25	Negative
1+	0.3	0.3	0.75	0.3
2+	1.0	1.0	1.5	1.0
3+	≥5	≥3.0	5.0	3.0
4+				≥10

Ketones

	Current			NEW
Standard Units	LifeLabs Lower Mainland CCB Velocity mmol/L	LifeLabs Vancouver Island Siemens Atlas mmol/L	LifeLabs Region PG Kamloops Terrace Roche 411 mmol/L	(for all of BC LifeLabs) Siemens Novus mmol/L
Negative	<0.5	<1.5	Negative	Negative (Reference Interval)
Trace	0.5	<1.5	0.5	Negative
1+	2	1.5	1.5	1.5
2+		4.0		3.9
3+	≥8	≥8.0	5.0	7.8
4+			15	≥15.6

Hemoglobin (Blood)

	Current			NEW
Standard Units	LifeLabs Lower Mainland CCB Velocity mg/L	LifeLabs Vancouver Island Siemens Atlas	LifeLabs Region PG Kamloops Terrace Roche 411 RBC/uL	(for all of BC LifeLabs) Siemens Novus Ery/uL
Negative	<0.3	Negative	Negative	Negative
Trace	0.3	Trace	10	Trace
1+		1+	25	25
2+	2	2+	50	80
3+		3+	150	200
4+	>10		250	

pH – reference interval not changed, 5.0 – 8.0

Specific Gravity – no reference interval

Nitrites – reference interval not changed

Appendix B - Microscopic:

Parameter	Changes
RBC	No change to reference interval of 0-2 / HPF
WBC	No change to reference interval of 0-5 / HPF
Non Squamous Epithelial cells	<ul style="list-style-type: none"> Renal and transitional epithelial cells will no longer be reported separately, but as Non Squamous Epithelial cells No change to reference interval of 0-5 / HPF
Squamous Epithelial cells	<ul style="list-style-type: none"> Now reported on all patients even if negative No reference interval as it is not a pathological finding Reported as /HPF
Pathological Casts	<ul style="list-style-type: none"> Now reported on all patients even if negative Reference interval is Negative Now reported as /HPF instead of /LPF
Crystals	<ul style="list-style-type: none"> Now reported on all patients even if negative No reference interval but if seen will be reported in the abnormal column
Hyaline Casts	<ul style="list-style-type: none"> Now reported when seen No reference interval Reported as /HPF
Other elements that will be reported when seen:	
<ul style="list-style-type: none"> Yeast Lipids: Oval Fat Bodies, Free Fat Droplets Mucus (if significant) Trichomonas Sperm for male and female patients <16 years old only 	