

Updated Semen Analysis Reporting

Dr. Ayesha Vawda, MD, FRCPC, Hematopathologist

LifeLabs BC is pleased to announce updated semen analysis based on recommendations of the *WHO laboratory manual for the examination and processing of human semen, Sixth Edition*. This will help maintain quality of semen analysis by providing updated, standardized and evidence-based reporting.

Effective September 25, 2023:

- Reference ranges have been adjusted for **volume, concentration, total motility, progressive motility**, and vitality/viability. Updated ranges appear on the report.
- Progressive motility is subclassified into **Rapidly Progressive** and **Slowly Progressive**.
- Sperm agglutination and **Time since last ejaculation** is reported.
- There is no impact on test ordering.

References: *WHO laboratory manual for the examination and processing of human semen*, Sixth Edition, 2021.

Update to Hematology Critical Values

Dr. Ayesha Vawda, MD, FRCPC, Hematopathologist

LifeLabs BC is pleased to announce updated hematology critical values commencing Spring 2024. To maintain quality patient care, LifeLabs critical hematology values are routinely reviewed and have mostly been aligned with the BC Critical Values Consensus Statement (BCALP 2023) and the Ontario Guideline for Reporting Laboratory Test Results (OAML 2009).

Analyte	LifeLabs Current Critical Values	LifeLabs Updated Critical Values
Hemoglobin (g/L)	Age 1-29 days: <80 >250 Age >30 days: <60 >200	Age 1-29 days: <80 >250 Age >30 days: <60
Platelet count (10 ⁹ /L)	<20	<20
Neutrophils (10 ⁹ /L)	<0.5 >99.9	<0.5 >100
Lymphocytes (10 ⁹ /L)	>300	>250
INR	>6.0	>6.0
PTT (sec)	>70	>100
Fibrinogen (g/L)	<0.80	<1.0
Joint Fluid Neutrophils (mega/L)	>25 000	>25 000
Blood Film Review	Malaria parasites	Malaria parasites

Flow Cytometry Request Requirements

Peter van den Elzen, MD, FASCP, Hematopathologist

Flow cytometry or immunophenotyping is a laboratory method with many clinical applications, each of which requires a different panel of reagent antibodies. LifeLabs collects flow cytometry samples on behalf of hospital laboratories; therefore, it is important to choose the correct panel - if the wrong one is used, the flow cytometry results could be misleading or cause a delay in diagnosis and patient inconvenience. The following recommendations were made in collaboration with local health authorities.

What this means to you:

- When ordering flow cytometry, please provide a relevant diagnosis or indication to ensure the correct antibody panel is used.
- Some recommended terminologies are listed in the table below for your reference.
- If no relevant diagnosis or no specific indication for flow cytometry is indicated on the requisition, a LifeLabs representative will call the ordering health care professional (HCP) for clarification. If the HCP is not available, the patient may be asked to return at a later date for collection.
- If the specific site of testing is known or preferred, include this information on the requisition.
- If ordering physicians within Fraser Health would prefer that flow testing for their patients be performed within the health authority, we recommend they send patients to a hospital in the Fraser Health system for this testing.

For further information, please call (604) 412-4528 and ask to speak with a hematopathologist (HP).

Conditions	Recommended Order	Location of Testing/ Days of Collection/ Website for requisition and info
Chronic lymphoproliferative disorder, chronic lymphocytosis, chronic lymphocytic leukemia, hairy cell leukemia, mantle cell lymphoma	Immunophenotyping for LPD	BC Cancer Agency (BCCA) Collected Mon-Thurs, and not before a Stat. holiday http://www.bccancer.bc.ca/health-professionals/clinical-resources/laboratory-services#Test-Request-Forms
HIV Monitoring	Immunophenotyping for HIV	St Paul's Hospital Collected Mon-Sun
Immunodeficiency, Tecfidera monitoring for MS, Ocrelizumab monitoring, Basiliximab monitoring, Rituxamab monitoring, CD27	Immunophenotyping for CD3	St Paul's Hospital Collected Mon-Sun
Inborn Error of Immunity (Primary Immunodeficiency)	T Cell Memory Panel B Cell Memory Panel Test must be pre-approved by HP or requested by Immunologists.	BC Children's (BBCH) Collect Mon-Thurs only, and not before a STAT holiday. Sample must arrive at lab within 30 hours of collection http://www.elabhandbook.info/PHSA/Default.aspx
Hereditary spherocytosis	Immunophenotyping for spherocytosis	BC Children's (BCCH) Collected Mon-Wed, and not before a Stat. holiday (link above)
Paroxysmal Nocturnal Hemoglobinuria	Immunophenotyping for PNH	Vancouver General Hospital (VGH) Collected Mon-Thurs, and not before a Stat. holiday. (link above)
Post-transplant monitoring	Immunophenotyping for CAAP	Vancouver General Hospital (VGH) Collected Sun-Thurs, and not before a Stat. holiday (link above)
Lymphocyte stimulation mitogen	Not available through Lifelabs	Please consult BCCH. 604-875-2345 x7491
Chronic granulomatous disease (CGD)	Not available through Lifelabs	Please consult BCCH. 604-875-2345 x7491
Autoimmune lymphoproliferative syndrome (ALPS)	Not available through Lifelabs	Please consult BCCH. 604-875-2345 x7491