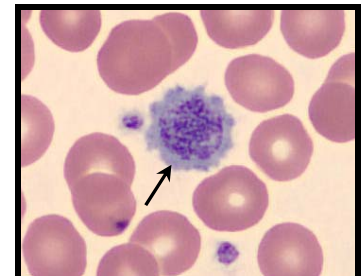


## NEW CBC Parameters

Our Hematology Department is pleased to announce the availability of two new Complete Blood Count indices:

### 1) Immature Platelet Fraction (IPF)

- IPF may also be referred to in the literature as reticulated platelets.
- This population of platelets represents the youngest circulating platelets.
- IPF provides an estimate of thrombopoiesis in the same way as reticulocyte count is a measure of erythropoiesis.
- It is part of accepted hematological practice and provides useful clinical information for the investigation and monitoring of platelet production in various thrombocytopenic conditions.
- The clinical utility of this parameter was established in the laboratory diagnosis of thrombocytopenia due to increased peripheral platelet destruction, particularly autoimmune thrombocytopenic purpura.
- It is also used for monitoring platelet recovery after chemotherapy and stem cell transplants, and timing for prophylactic platelet transfusion.



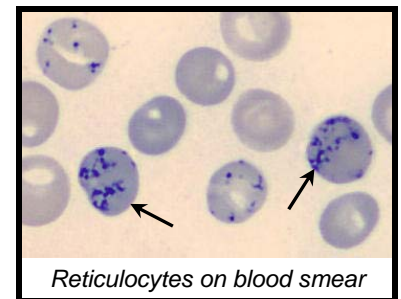
Giant platelet on blood smear

#### References:

1. Briggs C, Harrison P, Grant D, et al. New quantitative parameters on a recently introduced automated blood cell counter - the XE 2100<sup>™</sup>. *Clinical Laboratory Haematology* 2000;22:345-350.
2. Saigo K, Sakota Y, Masuda Y, et al. Clinical utility of new parameters provided by XE-2100 RET channel. *Sysmex Journal International* 2007;2:81-94.

### 2) Reticulocyte Hemoglobin Content (Ret-He)

- Determination of the Ret-He provides an early measure of functional iron deficiency because reticulocytes are the earliest erythrocytes released into blood and circulate for only 1 to 2 days. It is used as a sensitive and specific indicator of functional iron deficiency in clinical situations with otherwise normal red cell indices.
- Ret-He level is the strongest predictor of iron deficiency and iron deficiency anemia in children.
- It is also used to monitor response to iron supplements in iron deficiency and erythropoietin treatment during dialysis.



Reticulocytes on blood smear

#### Reference:

1. Mast AE, Blinder MA, Dietzen DJ. Test of the Month: Reticulocyte Hemoglobin Content. *Am J Hematol* 2008;83(4):307-310.

**If you want these two parameters to be reported, please order a Reticulocyte count.**

If you have any questions, please contact a member of the Hematopathologist group.

Dr. Ekram Zayed, Head: Hematopathology

## *Neisseria gonorrhoeae* Cultures

In response to the Public Health Agency of Canada's (PHAC) recently updated Canadian guidelines for screening and treatment of *Neisseria gonorrhoeae* (GC) infections, we would like to remind Physicians that LifeLabs performs GC cultures on specimens received from all across BC, including the Lower Mainland, Vancouver Island, the Sunshine Coast, Northern BC and the Interior. The updated guidelines are available on the PHAC website at <http://www.phac-aspc.gc.ca/std-mts/sti-its/alert/2011/alert-gono-eng.php>.

# D-Dimer Test Revisited

In the previous Physicians' Lab Update (December 2011), we briefly outlined our protocol for dealing with any abnormal D-Dimer result.

We have received some feedback indicating that our protocol is different from other laboratory service providers. After careful review and consultation, we have decided to adopt the protocol used by most other laboratories. Therefore, effective February 20, 2012, the following changes will be implemented:

- Abnormal D-Dimer results will no longer be phoned as a critical result.
- There will be an attempt to phone the abnormal results to the ordering physician. If the office is closed, the results will be phoned or faxed the next business day.
- LifeLabs Hematopathologists will no longer communicate the results to patients.

Please remember that the results are always available on **Excelleris**.

*Dr. Ekram Zayed, Head: Hematopathology*

# Semen Analysis Reporting

Effective February 9, 2012, LifeLabs will adopt the World Health Organization's (WHO) new criteria for semen analysis.<sup>1</sup> **The new reference ranges are as follows:**

Semen volume	≥ 1.5 ml
Sperm count	≥ 15 giga / L
Sperm motility – total	≥ 40%
Sperm viability	≥ 58%
Normal sperm morphology	≥ 4%

## Additional Information:

1. We will not grade the sperm motility as progressive or non-progressive until we have completed our study to evaluate the effect of specimen age on motility. In the meantime, we will report motility as motile or non-motile sperm only.
2. The sperm morphology is based on the evaluation of 400 sperms (instead of 200 as in the previous method) using the strict Kruger criteria (no change from previous method). The strict Kruger criteria are recommended by the WHO.
3. The new lower reference ranges were derived from normal semen analysis data using the 5<sup>th</sup> percentile compared to the 2.5 percentile used with the previous reference ranges.
4. It is recommended to evaluate more than one semen sample and always interpret results in conjunction with the clinical picture.

## Reference:

1. World Health Organization. WHO Laboratory Manual for the Examination and Processing of Human Semen, 5th ed. Geneva: World Health Organization; 2010.

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