

# Inside Diagnostics Ontario

The diagnostic Newsletter for Healthcare Providers

## Contents Page

---

Ontario Medical Director Update	2
What's the Big Diff?	4
Changes to Testing of 24-hr Urine Biogenic Amines	5
Payment for Uninsured Tests	6

OCTOBER 2019

 **LifeLabs®**

# LIFELABS ONTARIO MEDICAL DIRECTOR UPDATE



**J. Timothy (Tim) Feltis**  
MD FRCPC

Ontario Medical Director, LifeLabs

As the Ontario Medical Director, I often get questions regarding laboratory testing. In this article, I would like to address two common topics, Standing Orders for Lab Testing and Ordering of URGENT and ASAP tests, as well as provide a brief update about exciting improvements in our Anatomic Pathology section.

For these reasons LifeLabs cannot offer “STAT” laboratory testing.

However, for certain tests, listed below, we can offer “URGENT” testing. These urgent orders must be listed on the OHIP requisition and we require a phone number where the physician can be reached at all times.

**URGENT tests available at LifeLabs** as per Ontario Association of Medical Laboratory Guidelines:

Amylase, CBC, Calcium, Chloride, Creatinine, Estradiol (IVF only), Glucose, INR, Lipase, Malaria Smear, Neonatal Bilirubin, Potassium, Sodium, Urea.

Please note, when an inappropriate “URGENT” order sample is received (either as a HCP-collected or patient presenting at a PSC), the test will automatically be downgraded to “ASAP” status.

The HCP must contact the Laboratory Director or the Medical Director on call through the Customer Care Centre at 1-877-404-0637 to have a non-available URGENT test performed on an URGENT basis. It may not be possible to comply with the request, depending on the nature of the test required.

We will perform URGENT tests as quickly as possible, usually within a 6 to 12 hour window, depending on logistics. These results will be called to the ordering Health Care Provider (HCP).

There is a second category of asking for expedited results. These can be ordered as “ASAP”. Most tests can be ordered in this fashion, but the response time may vary significantly depending on the test. These results will be auto faxed to the HCP.

It should be noted that it would be inappropriate to order Public Health Tests, Ref-Out Tests and ECGs as URGENT or ASAP.

## STANDING ORDERS FOR LABORATORY TESTING

Some patients require frequent monitoring by laboratory testing (e.g. INR tests). A Health Care Provider (HCP) can send the laboratory a standing order for such testing.

The standing order **MUST** specify the frequency of testing as weekly, biweekly, etc. It cannot be written “as needed”.

This order will cover a period of time up to six (6) months. Once the six months have expired, a new standing order needs to be created.

The laboratory will inform the patient when the standing order is about to expire and it is the responsibility of the patient to return to their HCP to obtain a new one.

Ideally, standing orders should be written on a separate OHIP Lab Testing Requisition and should not have other tests to be performed on one occasion. This will help to avoid any confusion at our Patient Service Centres (PSCs).

## ORDERING URGENT AND ASAP TESTS

LifeLabs is a community laboratory with approximately 240 PSCs across the province. Laboratory testing is done in one of our six laboratory locations, so that it often takes considerable time for specimens to reach our testing sites.

# LIFELABS ONTARIO MEDICAL DIRECTOR UPDATE

## ANATOMIC PATHOLOGY NEWS

In early October, our Cytology Division will begin reporting Fine Needle Aspirates (FNAs) of salivary glands by the recent Milan guidelines.

This will be a significant improvement on our current reporting and will offer more specific diagnostic information and recommendations.

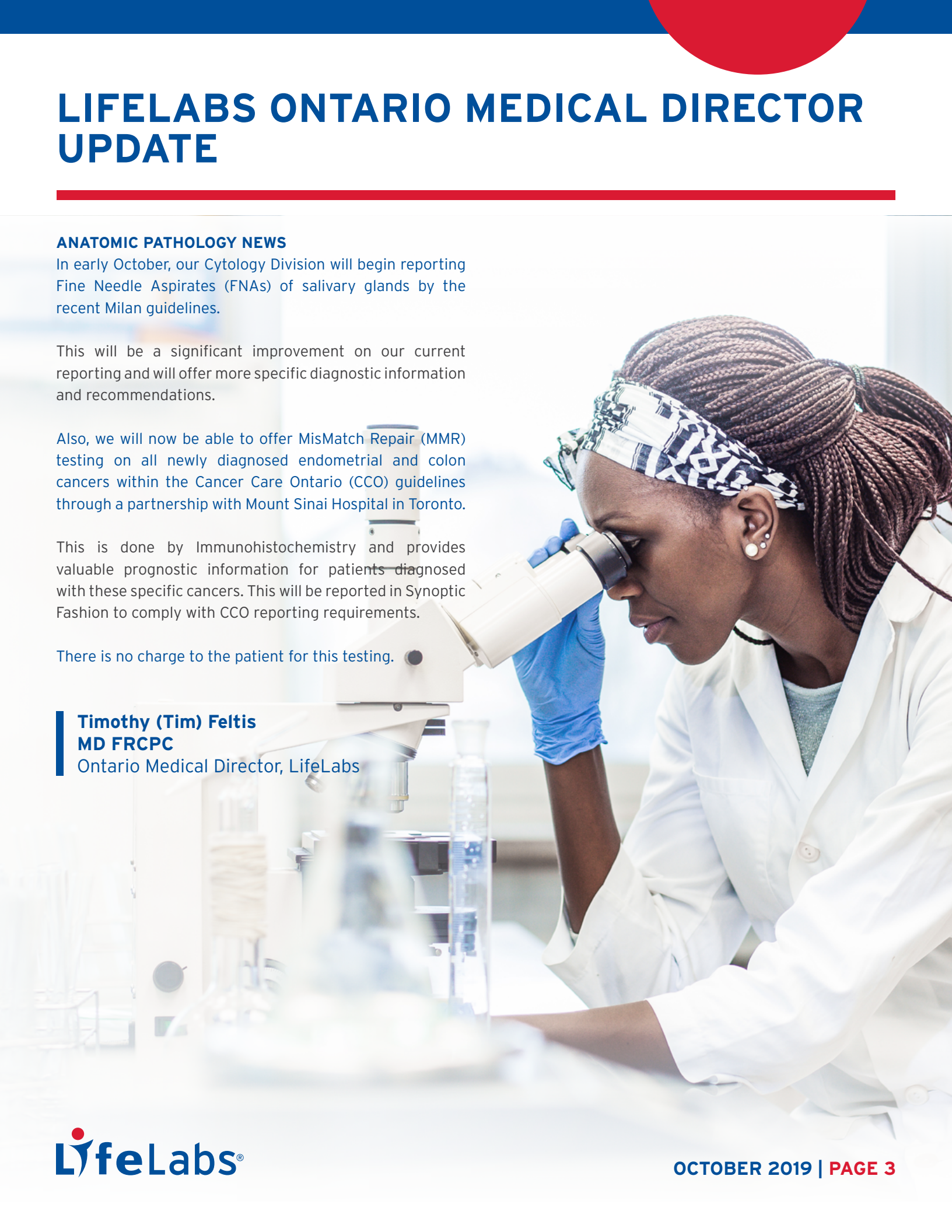
Also, we will now be able to offer MisMatch Repair (MMR) testing on all newly diagnosed endometrial and colon cancers within the Cancer Care Ontario (CCO) guidelines through a partnership with Mount Sinai Hospital in Toronto.

This is done by Immunohistochemistry and provides valuable prognostic information for patients diagnosed with these specific cancers. This will be reported in Synoptic Fashion to comply with CCO reporting requirements.

There is no charge to the patient for this testing.

**Timothy (Tim) Feltis**  
**MD FRCPC**

Ontario Medical Director, LifeLabs



# WHAT'S THE BIG DIFF?

“CBC and Diff” has long been the traditional terminology used when a physician orders a Complete Blood Count (CBC) with a total white cell differential count. Previous to the 1990’s, ordering the “Diff” was necessary because the total CBC values were generated by an automated process while the white differential was counted manually. Therefore, the white cell “Diff” was a separate test worthy of a separate request.

## **But things have changed...**

Since the mid 1990’s the CBC, including the white cell differential count, has been an entirely automated process. **Today if a CBC is ordered, it is implied that the white cell differential count will be included.** Additionally, the technology used to determine the CBC values has become increasingly sophisticated over the years. Due to advances in computer processing that allows these instruments to analyze and store data, the accuracy and precision of CBC analyzers has dramatically improved. CBC analyzers not only count the cells, they sort, categorize, and identify abnormal cell populations (e.g.: blasts, lymphoma cells, nucleated red blood cells) as well as flag samples with other quantitative abnormalities (e.g.: platelet clumps).

## **A CBC order also includes a peripheral smear, if necessary...**

In the same way that a CBC order implies that a “Diff” will be performed, a CBC order also includes a peripheral smear exam if required according to pre-set rules. The sophistication of these instruments allows the programming of certain “flagging” rules - at LifeLabs these rules are based on published guidelines (see references).

The instrumentation’s technology combined with the application of these programmed rules determine if a sample is abnormal and therefore worthy of a blood film exam or if the sample is within normal limits. **If a blood film is ordered on a patient sample but no flags are generated by the instrument, then a blood film exam will not be performed.**

## References:

1. George, T. Automated Hematology Instrumentation. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA. (Accessed on July 14, 2017).
2. Barnes PW, McFadden SL, Machin SJ, Simson E. The International Consensus Group for Hematology Review: Suggested Criteria for Action Following Automated CBC and WBC Differential Analysis. Lab Hematol. 2005;11(2):83-90
3. Laboratory Guidelines. College of Physicians and Surgeons of Saskatchewan. 2014.

**Miranda Wozniak  
MD FRCPC**

Deputy Ontario Medical Director  
Discipline Head, Hematology

## POINTS TO REMEMBER:



- It is not necessary to order the “Diff” when requesting a CBC.
- A blood film exam will only be performed if the CBC instrumentation detects an abnormality.

# Changes to Testing of 24-hr Urine Catecholamines, Metanephrines, VMA (Vanillylmandelic Acid), HVA (Homovanillic Acid), 5-HIAA (5-Hydroxyindoleacetic Acid)

LifeLabs is pleased to update you on the changes to five tests including 24-hr urine Catecholamines, Metanephrines, VMA, HVA, and 5-HIAA that took effect on September 9, 2019.

## Sample Collection Requirements and Turnaround Time (TAT):

- There are minor updates to Sample Collection Requirements for each of the five tests.

Patient Test Instructions with details on how to prepare for this test can be found on LifeLabs website: <https://www.lifelabs.com/patients/preparing-for-a-test/patient-test-instructions/> (Specific Tests) and will also be provided when a patient visits one of our Patient Collection Centers (PSCs).

- TAT remains 7 days

## Reporting:

- There are no changes to reference cut-offs, units, and reporting format for Catecholamines, VMA, HVA, 5-HIAA

- There are a number of important changes to 24-hr urine Fractionated Metanephrines:**

- The new method will test for Free instead of Total Fractionated Metanephrines. Clinical guidelines endorse use of 24-hr urine Free Metanephrines and recent literature shows that 24-hr urine Free Metanephrines have better diagnostic accuracy over total Metanephrines. (References: Lenders JWM et al, 2014, J Clinical Endocrinol Metab, 99(6): 1915-1942; Eisenhower G et al, 2018, Clinical Chemistry, 64:11, 1646-1656).

- Test results for Free Metanephrine and Normetanephrine will be approximately 80% lower compared to the current method (Total Metanephrine and Normetanephrine).
- 3-MT (3-Methoxytyramine), a metabolite of Dopamine, will be added to the Free Metanephrines panel in addition to Metanephrine and Normetanephrine.
- Reporting format and units will remain the same but the reference cut-offs will change as per table below.

24-hr Free Urine Metanephrines	NEW Reference Cut-Off
Free Metanephrine /day	< 0.25 µmol/day
Free Normetanephrine /day	< 0.28 µmol/day
Free 3-Methoxytyramine (3-MT)/day	< 0.52 µmol/day

## Improved Testing Methodology:

- Current testing done by high pressure liquid chromatography (HPLC) will be replaced by Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS). The LC-MS/MS technology is considered a gold standard in this area of testing and has improved analytical specificity compared to HPLC.
- All LC-MS/MS methods are developed by LifeLabs. Their performance characteristics have been fully validated and the tests have been designated fit for use in routine patient testing. The tests have not been submitted to Health Canada for evaluation, and as in-house validated tests, do not require Health Canada approval for diagnostics use.

The development of these new methodologies demonstrates our continued commitment to improving quality of testing, and to help build a healthier Canada.

**Danijela Konforte**  
**PhD FCACB**  
Clinical Biochemist

If you have any questions, please contact our Customer Care Centre: 1-877-849-3637. We welcome your feedback!

## PATIENT PAYMENT FOR UNINSURED LAB TESTS

As of September 1, 2019 LifeLabs will require payment for uninsured tests at the time of collection.

Your patients may pay for their uninsured test using debit, Visa, MasterCard or cash before the test is administered.

### WHAT THIS MEANS TO YOU

LifeLabs prides ourselves on providing Canadians with access to innovative and high quality tests. As our valued partner, we ask that you advise your patients that they must pay for uninsured tests before they present at a LifeLabs service centre.

Please note that if your patient has a requisition for a repeat standing order, we are unable to perform a collection once the six month expiry date has passed.

We provide patients with ample notice of their upcoming expiry dates through the following channels:

- A letter of notification one month prior to the expiry date (when they present at a PSC)
- The expiry date on their card is highlighted and we confirm this notification in writing on the card

We will make every attempt to support your patient so they can continue to access lab services.

Thank you in advance for your cooperation.

If you have any questions please contact us:  
1-877-849-3637.



LifeLabs and the LifeLabs logo are registered trademarks of LifeLabs LP. © LifeLabs 2017

For more information,  
please visit our site at  
[www.LifeLabs.com](http://www.LifeLabs.com)

**Dr. Huda Almohri**  
Deputy Ontario Medical Director,  
Discipline Head, Microbiology  
416-675-4530 ext.42105  
huda.almohri@lifelabs.com

**Dr. Abdel Belhaj**  
Medical Microbiologist  
416-675-4530 ext.42344  
abdel.belhaj@lifelabs.com

**Dr. Uvaraj Uddayasankar**  
Clinical Biochemist  
416-675-4530 ext.42211  
Uvaraj.Uddayasankar@lifelabs.com

**Dr. Mohamed Abouelhassan**  
Clinical Biochemist  
416-675-4530 ext.42216  
Mohamed.Abouelhassan@lifelabs.com

**Dr. Afaf Erfaei**  
Hematopathologist  
416-675-4530 ext.42944  
afaf.erfaei@lifelabs.com

**Dr. Timothy Feltis**  
Ontario Medical Director  
416-675-4530 ext.42801  
tim.feltis@lifelabs.com

**Dr. Theano Karakosta**  
Mass Spectrometry Specialist  
416-675-4530 ext.42029  
theano.karakosta@lifelabs.com

**Dr. Danijela Konforte**  
Discipline Head, Special Chemistry  
416-675-4530 ext.42207  
danijela.konforte@lifelabs.com

**Dr. Vanessa Tran**  
Clinical Microbiologist  
416-675-4530 ext.42813  
Vanessa.Tran@LifeLabs.com

**Dr. Daniela Leto**  
Medical Microbiologist  
416-675-4510 ext.32310  
daniela.letto@lifelabs.com

**Dr. Patrick St.Louis**  
Clinical Biochemist  
416-675-4530 ext.42253  
patrick.st.louis@lifelabs.com

**Dr. Tracy Morrison**  
Clinical Biochemist  
416-675-4530 ext.42975  
tracy.morrison@lifelabs.com

**Dr. Dorothy Truong**  
Clinical Biochemist  
416-675-4530 ext.42208  
dorothy.truong@lifelabs.com

**Dr. Nicole White-Al Habeeb**  
Clinical Biochemist  
416-675-4530 ext.42099  
Nicole.White-AlHabeeb@lifelabs.com

**Dr. Krystyna Ostrowska**  
Medical Microbiologist  
416-675-4530 ext.42892  
krystyna.ostrowska@lifelabs.com

**Dr. Difei Sun**  
Mass Spectrometry Specialist  
416-675-4530 ext.42296  
difei.sun@lifelabs.com

**Dr. Kika Veljkovic**  
Discipline Head, High Volume  
Chemistry  
416-675-4530 ext.42832  
kika.veljkovic@lifelabs.com

**Dr. Miranda Wozniak**  
Deputy Ontario Medical Director,  
Discipline Head, Hematology  
416-675-4530 ext.42040  
miranda.wozniak@lifelabs.com