Health Care Providers Newsletter
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Estradiol Testing: Medication-Related Interferences

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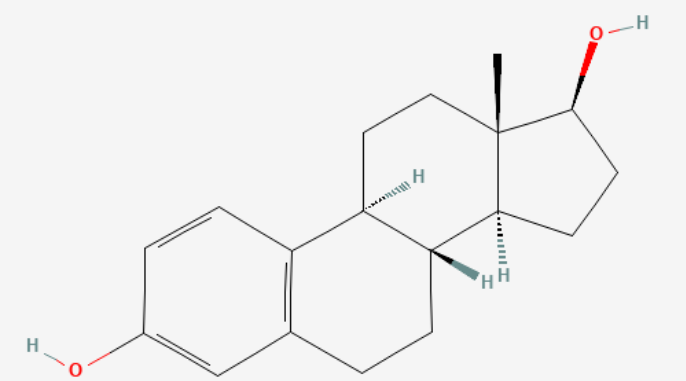
LifeLabs currently utilizes the Abbott Alinity i chemiluminescent microparticle immunoassay method to measure estradiol in patient serum. Structural and functional analogues of steroid hormones, including the estradiol molecule, have the potential to cause interference or cross react with the Alinity i Estradiol assay.

The Alinity i Estradiol assay should not be used to assess estradiol levels for patients undergoing treatment with the following medications:

- Fulvestrant (used to treat certain types of breast cancer)
- Mifepristone (used for early pregnancy termination)
- CDK 4/6 inhibitors (used to treat hormone receptor positive breast cancer)
- Aromatase inhibitors (used to reduce circulating levels of estrogen)



https://pubchem.ncbi.nlm.nih.gov/compound/Estradiol

The medications listed above have the potential to cause falsely elevated estradiol results. An alternate estradiol method should be used to monitor estradiol levels in patients being treated with these drugs. Please contact LifeLabs for assistance with selecting an alternate testing location.

Predictable Antibiogram Series – Cefixime & Traveller's diarrhea

Dr. Eugene Yeung, MD, FRCPC, FCCM, Medical Microbiologist

Following on our last issue, I want to talk about microorganisms whose susceptibility profile could be unpredictable sometimes. The Committee to Advise on Tropical Medicine and Travel (CATMAT) guidelines (https://www.canada.ca/en/public-health/services/catmat/statement-travellers-diarrhea.html) suggested that cefixime could be an alternative for children with traveller's diarrhea if antibiotic is needed but quinolones and macrolides are contraindicated. However, the committee also stated there is no clinical data for the use of cefixime in traveller's diarrhea. In another statement, the committee commented that cefixime may be active *in vitro* for *Salmonella*, but clinical data are currently lacking (https://www.canada.ca/en/public-health/services/catmat/interim-guidance-management-infections-multidrug-resistant-strain-salmonella-newport.html).

Canadian microbiologists like myself tend to use the Clinical & Laboratory Standards Institute (CLSI) M100 guidelines to interpret antimicrobial susceptibility testing results. In their 2024 update, the *Salmonella* and *Shigella* cefixime breakpoints were removed (i.e. values used to interpret the susceptibility results and classify isolates as susceptible or resistant). In view of that, LifeLabs BC has now removed the cefixime results for laboratory reports with *Salmonella* and *Shigella* . That is one "predictable" change you will see next time!

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Responsibilities to Follow Up Test Results

Dr. Eugene Yeung, MD, FRCPC, FCCM, Medical Microbiologist

I recently attended an excellent accredited workshop on test results follow-up (https://www.cmpa-acpm.ca/en/education-events/workshops/workshop-test-results-follow-up), hosted by Canadian Medical Protective Association (CMPA). The workshop went through medico-legal responsibilities and patient safety issues involved with management of your ordered test results. This workshop registration is **free** for CMPA members. There are some upcoming sessions in April and May of this year! Check this out!

Inform the lab in advance if a high-risk pathogen is in your differential

Dr. Eugene Yeung, MD, FRCPC, FCCM, Medical Microbiologist

If a clinician has a high-risk pathogen (also known as risk group 3 and 4 pathogens) in their differentials and is about to submit a patient specimen to a clinical laboratory, it is best to keep the laboratorians informed in advance. But what exactly is a risk group 3 or 4 pathogen? What does a laboratory do differently if their lab workers know about that in advance? Some examples include Brucella (Brucellosis), Coccidioides (San Joaquin fever), Francisella (Tularemia), Histoplasma (Histoplasmosis), and Yersinia pestis (Plague) that would prompt laboratories to minimize infectious aerosol generating procedures of these specimens in our workplace.

I empathetically understand that laboratory biosafety and occupationally acquired infections are often not taught comprehensively in medical schools. That is why recently I published an article to help raise awareness of the differences in laboratory biosafety and patient-facing infection prevention control, hoping I can raise awareness of clear communication to facilitate risk prevention in advance (Yeung, E.Y.H. A Review of Laboratory Biosafety and Infection Prevention and Control Guidelines on the Management of High-Risk Pathogens in Canada. *Acta Microbiol. Hell*. **2025**, 70, 2. https://doi.org/10.3390/amh70010002)

In a surveillance study of laboratory exposure incidents in Canada in 2023, 23.8% of laboratory exposure incidents were reportedly due to miscommunication. If we laboratorians and clinicians alike can work on clear communication regarding high risk pathogens, I have faith that we could significantly reduce the number of laboratory exposure incidents.

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Diagnostic Accreditation Program