

<b>DATE:</b>	24 August 2023
<b>TO:</b>	All Zones: Physicians, Nurses and Healthcare Providers, Laboratory Staff
<b>FROM:</b>	Clinical Biochemistry, DynaLIFE Medical Labs and Alberta Precision Labs
<b>RE:</b>	<b>Implementation of Fecal Calprotectin Testing in Alberta</b>

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## PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

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### Key Messages

- **Effective August 30, 2023**, Effective August 30, 2023, all testing for fecal calprotectin (FCP) for the province will be performed at the Base Laboratory in Edmonton (DynaLIFE).
- FCP will be orderable in Connect Care (Test code: Fecal Calprotectin [LAB5116]) and using the general community requisition.
- Because FCP testing will be performed within Alberta, turnaround times will be significantly improved.
- FCP testing at the Edmonton Base Lab will replace current testing performed by the out-of-province referral laboratory.
  - The method for measuring FCP is different from that used by the referral laboratory, and numerical results may differ.
  - There will be new interpretive guidance for screening of undiagnosed GI disease (such as inflammatory cause of diarrhea, including Inflammatory Bowel Disease (IBD)) and for monitoring IBD activity.
  - Result comments will be updated to reflect the new methodology.

### Background

- FCP is a non-invasive marker of gut inflammation with clinical utility for distinguishing between IBD (Crohn's disease and ulcerative colitis) and Irritable Bowel Syndrome (IBS) or other GI diseases.
  - Elevated concentrations of FCP are found in IBD, whereas levels are normal in IBS.
  - Indeterminate concentrations of FCP can be found in several benign conditions, such as in patients on NSAIDs or PPIs or those with GI infections, celiac disease, and microscopic colitis.
- FCP is useful for monitoring IBD patients to assess response to treatment (such as biologic therapy).
- High concentrations of FCP are commonly observed in pediatric patients less than 4 years of age.
  - Robust pediatric reference intervals have not been established for this age group.

### How this will impact you

- Before August 30, 2023, all FCP orders will continue to be referred outside the province for testing at the Hamilton General Hospital's Laboratory Reference Centre. The referral laboratory measures FCP with the IDK Calprotectin ELISA method, and reports results in mg/kg.
- As of August 30, 2023, testing will be performed locally, on the Diasorin Liaison XL automated analyzer. Results will be reported in µg/g.
- FCP methods are not standardized, so numerical FCP results tested post August 30, 2023, should NOT be compared to previous FCP results from the external referral laboratory.



- Please note the **new interpretive guidance**:

<b>For Patient ≥4 years of age</b>		
<b>Indication for testing</b>	<b>Result</b>	<b>Interpretive Guidance</b>
Investigation of patients with GI symptoms	<50 ug/g	<b>Normal.</b>
	50-120 ug/g	<b>Indeterminate.</b> If symptoms persist, repeat testing should be considered in 4-6 weeks. If the repeat result is still indeterminate, the patient should be referred for consultation or physician advice.
	>120 ug/g	<b>Elevated.</b> The patient should be referred for consultation or physician advice.
Monitoring of known IBD patients	>250 µg/g	Result suggests active inflammation.
<b>For Patient &lt;4 years of age</b>		
<ul style="list-style-type: none"> <li>• High levels of fecal calprotectin are commonly observed in pediatric patients less than 4 years of age. Robust pediatric reference intervals have not been established for this age group. Clinical correlation is required.</li> <li>• However, for evaluation of patients with GI symptoms, results &gt;200 µg/g warrant discussion with Pediatrics GI.</li> </ul>		

### Action Required

- Refer to the FCP Laboratory Test Directory page for information on sample collection and handling.
- Refer to the appropriate Digestive Health Primary Care Pathways for more detailed information on when to order FCP and interpretation of results:
  - [Primary Care Supports | Alberta Health Services](#)
    - Chronic Diarrhea Primary Care Pathway
    - Irritable Bowel Syndrome (IBS) Primary Care Pathway
- Update order sets and preference lists with the new fecal calprotectin test code (Fecal Calprotectin [LAB5116])

### Questions

- DynaLIFE Edmonton: Clinical Chemist Team, 780-451-3702 ext. 3572, [clinical.chemists@dynalife.ca](mailto:clinical.chemists@dynalife.ca)
- Digestive Health Strategic Clinical Network: [digestivehealth.scn@albertahealthservices.ca](mailto:digestivehealth.scn@albertahealthservices.ca)

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