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A Service of the HAMILTON REGIONAL LABORATORY MEDICINE PROGRAM

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TO:

REFERRING CLIENTS

FROM:

Barb Baltzer, LRC Coordinator

Hamilton Regional Laboratory Medicine Program (HRLMP)

DATE:

May 29, 2014

SUBJECT:

Fecal Calprotectin Testing - Effective June 2, 2014

We are pleased to announce that effective June 2, 2014, **fecal calprotectin** testing will be available in the Clinical Chemistry/Immunology Laboratory of the HRLMP. Calprotectin is an abundant neutrophil protein. Inflammatory damage of the intestinal mucosa causes an influx of neutrophils into the intestinal lumen, after which increased calprotectin can be measured in stools. Fecal calprotectin can be used to differentiate between inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS). In addition, it is useful in monitoring the effectiveness in IBD treatment and in detecting IBD relapse. Fecal calprotectin can be detected by an immunoassay in a stool sample.

#### Clinical Guidelines and Recommendations

In addition to the demonstrated clinical utility, there is considerable evidence supporting the economic benefit of Calprotectin to healthcare through the reduction in endoscopy procedures. Decreasing the need for endoscopy also reduces the inherent risk associated with invasive procedures particularly in the pediatric population. Guidelines and recommendations regarding the utilization of Calprotectin were published recently by the National Institute for Health and Care Excellence UK (2013)<sup>1</sup>.

Methodology: ELISA

As one of the first Canadian Clinical Laboratories to validate and offer Calprotectin from a Canadian facility, we conducted an extensive investigation as part of the method selection process. Working with Gastrointestinal physicians from Hamilton Health Sciences/McMaster University, we evaluated Calprotectin assays from multiple vendors, and among those selected the best one based on clinical and analytical performance. The results of our evaluation will be presented at the upcoming Canadian Society for Clinical Chemists annual scientific meeting in Charlottetown PE (Kittanakom *et al* 2014)<sup>2</sup>.

Price: \$60.00

# Specimen Collection and Transport to the Laboratory:

Stool collected in screw capped clean container should be delivered (at 2-8° C) to the laboratory within 72 hours of collection.

TAT: 14 days

#### Reference Intervals:

Adult	Pediatric	
18 years and over:	1 month - <6 months:	Normal <538 mg/kg
Normal <50 mg/kg	6 months - <3 years:	Normal <214 mg/kg
	3 years - <4 years:	Normal <75 mg/kg
	4 years - 17 years:	Normal <50 mg/kg

## For further information please contact:

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### References

- 1. Faecal calprotectin diagnostic tests for inflammatory diseases of the bowel . (2013) http://www.nice.org.uk/dg11
- 2. Validation and Evaluation of Fecal Calprotectin Assays in Pediatric Inflammatory Bowel Disease. <u>Kittanakom S</u> *et al.* To be presented at CSCC Scientific meeting in Charlottetown PE, June 8-11, 2014.