



## Faecal Calprotectin

Lower bowel symptoms, including chronic abdominal pain or discomfort with diarrhoea or constipation, are common presenting features in both primary and secondary care settings. These symptoms may be caused by a number of different conditions, including **inflammatory bowel disease (IBD)**, of which **ulcerative colitis (UC)** and **Crohn's disease (CD)** are the most common, and **irritable bowel syndrome (IBS)**.

The conventional diagnostic pathway includes initial blood tests, including a full blood count, markers of inflammation such as C-reactive protein (CRP), plus serological testing for coeliac disease (typically tissue transglutaminase antibodies). CRP, while specific for inflammation, cannot localise it to the gut. Microbiological testing should be used as appropriate to exclude an infective cause. These initial tests are used to assist in deciding which patients should proceed to imaging studies and/or endoscopy.

Testing for faecal calprotectin may be performed when a clinician wants to determine whether an endoscopy is likely to be useful.

Calprotectin is a small calcium-binding protein and is a member of the S100 family of zinc-binding proteins. In the presence of active intestinal inflammation, polymorphonuclear neutrophils migrate to the intestinal mucosa from the circulation.

Any disturbance to the mucosal architecture due to the inflammatory process, results in leakage of neutrophils, and hence, calprotectin, into the lumen and its subsequent excretion in faeces. The concentration of calprotectin in faeces has been shown to correlate well with finding an inflammatory process at endoscopy.

The Screening test that is used for Calprotectin in our laboratory has a cutoff of 50ug/g. All positive results on the screening test (> 50ug/g), will then have a confirmatory immunoassay test performed.

### **Specimen Requirements:**

5g Faeces sample.

Turnaround Time: Within 1 week.

If you have any queries please contact:

Dr Tim Sutton  
Pathologist  
(07) 577 4513

Bobby Tagore  
HOD Biochemistry  
(07) 577 5209