Faecal calprotectin (FC) is a surrogate marker of intestinal inflammation which can assist in the differentiation of non-inflammatory conditions (eg, irritable bowel syndrome) from inflammatory diseases (eg, IBD) thereby guiding the selection of patients requiring further investigations.\(^1\)

- FC can be used to assist with clinical decision making in IBD management.\(^2\)
- FC levels < 100 micrograms/g correspond to mucosal healing/histological remission in ulcerative colitis (UC) and luminal Crohn Disease (CD).\(^3\)
- FC prior to therapeutic de-escalation is inversely related to risk of relapse; FC levels > 100 micrograms/g are associated with higher risk of relapse within 1 year.\(^4\)
- Elevated FC correlates with endoscopic inflammation in UC and CD, with FC levels > 250 micrograms/g differentiating active disease from remission (sensitivity 80%, specificity 82%).\(^5\)
- In CD affecting the small bowel without affecting the colon, accuracy of FC may be lower; patients with isolated small bowel CD may have normal FC despite active disease.\(^6\)
- FC levels may begin to rise 3 months before symptoms of relapse become apparent.\(^7\)

### Use of FC in clinical decision making for patients with diagnosed IBD

<table>
<thead>
<tr>
<th>Symptomatic patient</th>
<th>Asymptomatic patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclude gastrointestinal infection</td>
<td>Faecal calprotectin test as part of regular monitoring 6 monthly</td>
</tr>
<tr>
<td>Faecal calprotectin test</td>
<td></td>
</tr>
<tr>
<td>&lt; 100 µg/g</td>
<td>&lt; 100 µg/g</td>
</tr>
<tr>
<td>Intermediate result: see below</td>
<td>Intermediate result: see below</td>
</tr>
<tr>
<td>Consider non-inflammatory cause for symptoms</td>
<td>Indicative of mucosal healing/remission Continue current therapy Wean/cease corticosteroids if patient is still taking these Consider de-escalation of therapy if indicated based on the clinical scenario</td>
</tr>
<tr>
<td>100–250 µg/g</td>
<td>100–250 µg/g</td>
</tr>
<tr>
<td>Indicative of active disease Consider escalation of IBD treatment</td>
<td></td>
</tr>
<tr>
<td>&gt; 250 µg/g</td>
<td>&gt; 250 µg/g</td>
</tr>
<tr>
<td>Indicative of intestinal inflammation Exclude gastrointestinal infection Consider further evaluation of disease activity eg, imaging, endoscopy Consider escalation of IBD treatment</td>
<td></td>
</tr>
</tbody>
</table>

#### Intermediate result
- Needs to be interpreted in the clinical context.
- Check adherence to therapy.
- Consider the change from baseline and past levels and trends of FC in the individual patient.
- Consider other factors which can increase FC results (eg, infection, diverticulitis, medications (non-steroidal anti-inflammatory drugs, proton pump inhibitors), excessive alcohol intake).
- A FC cut off of 250 micrograms/g, in conjunction with other indicators of disease activity, has been used to guide dose escalation and de-escalation in a treat to target approach\(^8\)
- Consider repeating FC test in 2–3 weeks to assess trend (NB: Only one FC/year Medicare-rebatable-see item descriptor)
- Correlate FC with more specific investigations eg, imaging, endoscopy.
Team communication

General practitioners are often the first point of contact for patients with IBD. Clear communication between gastroenterologists and other team members regarding the use and interpretation of FC testing can facilitate timely and appropriate access to testing as part of the treatment plan.

From 1st November 2021, a Medicare rebate will be available for FC testing if specific criteria are met. Patients aged \( \leq 50 \) years with gastrointestinal symptoms suggestive of inflammatory or functional bowel disease of more than 6 weeks’ duration who are presenting to a Medical Practitioner; where infectious causes have been excluded and the likelihood of malignancy has been assessed as low, and where no clinical alarms are present. A maximum of 1 test may be performed in any 12-month period. Patients aged \( \leq 50 \) years with gastrointestinal symptoms suggestive of inflammatory or functional bowel disease and where no clinical alarms are present, presenting to a Specialist Gastroenterologist, in whom an initial faecal calprotectin test was inconclusive (50–100 micrograms/g), and where the Specialist feels an endoscopic examination is not initially warranted. A maximum of 1 test may be performed in any 12-month period.

Check the MBS Online for details.

References