Introduction
Cell shedding, the process by which intestinal epithelial cells (IECs) are extruded from the small intestinal (SI) villus is known to be elevated in patients with inflammatory bowel disease (IBD) and is correlated with disease relapse. Importantly, there is evidence that the gut bacterial communities (microbiota) influences intestinal epithelial function including gene expression, cell division and energy balance. We thus sought to determine whether specific members of the microbiota, ‘probiotic’ bifidobacterial species, modulate rates of cell shedding and progression of Dextran sodium sulphate (DSS)-mediated colitis.

Methods
C57BL/6 mice (WT) or mice deficient in epithelial ABH and where a diagnostic dilemma existed. Results were recorded as normal (<50 µg/g), borderline (50–100 µg/g) or positive (>100 µg/g) and correlated with the use of further endoscopic or radiological assessment. Department of Health (DoH) tariffs were used to assess cost burden and potential savings.

Results
275 FC measurements were performed in new referrals where there was a dilemma about diagnosis or need for further investigation. Colonoscopy was spared in 71% (196/275), including 139/164 normals, 16/22 borderline and 35/89 positives.

Despite a normal FC result, 25 patients underwent endoscopic investigation after initial assessment. Of these, 16 procedures were normal, 4 had diverticular disease and 2 had low grade dysplastic polyps. Some patients underwent CT colonography with positive findings in 4/17 of the normal FC group (3 diverticular disease, 1 incidental gastric malignancy), 0/2 with borderline FC and 8/15 with positive FC measurement (5 diverticular disease, 1 suspected ileal ulcer, 2 cancers).

If all 275 patients had undergone colonoscopy the cost for the Clinical Commissioning Group (CCG) would be £154275. Risk stratifying with FC assessment reduced this to £44319, saving £109956.

Conclusion
Faecal calprotectin assessment saved 71% of possible colonoscopies in those new patients assessed for ABH where there was a dilemma as to whether endoscopic investigation was necessary. This provided clinicians with the confidence to diagnose and manage functional bowel symptoms earlier. FC testing also saved our CCG £109956 of potentially unnecessary colonoscopy with the simultaneous advantage of reducing endoscopy waiting times.

REFERENCES

Disclosure of Interest None Declared.