Background

Faecal Calprotectin is a well-established biomarker to measure the level of inflammation in the gut. Assessment of calprotectin is important to measure disease activity, effectiveness of treatments as well as predicting relapses in Inflammatory Bowel Disease (IBD). The IBDoc allows reliable testing of faecal calprotectin using a smartphone at home. IBDoc was introduced at Mercy University Hospital in 2014 and now has 733 users mainly amongst those patients on biologic therapy. It has proved hugely popular with patients, has increased medication compliance and promoted self-management.

The objective of this study was to evaluate the impact of IBDoc in clinical practice.

Methods

IBDoc results were monitored over a 6 month period. A total of 240 tests were performed by patients with IBD. All patients were aged between 18-52 years. The results were evaluated to determine suitable clinical interventions, fast track clinic appointments, urgent colonoscopies, change of medical therapy and suitability for Virtual Clinics (VC’s).

Results

Of the 240 tests performed, 40% had a normal result (< 100µg/g), 40% were moderate (100 - 300µg/g) and 20% were high (>300µg/g).

All of the patients with normal results avoided clinic appointments which freed up clinic time for patients with active disease and resulted in cost savings for the hospital. In addition, 80% of the patients with normal results required no intervention within the following 4 months.

70% of the patients with normal results were deemed suitable for future Virtual Clinics which resulted in further cost savings and freed up Consultant time.

The majority of patients (60%) had IBDoc results which were moderate or high. All of the moderate results were fast tracked to clinic and 20% of these had a change of medical therapy.

The 20% of patients that gave high IBDoc results were all booked for urgent colonoscopy and all of these were found to have active disease. The table below shows the treatment change for these patients based on the colonoscopy:

Conclusion

This study shows the benefits of using IBDoc in clinical practice. It is central to facilitating a fast track system for patients which results in better outcomes for patients. IBDoc facilitates better allocation of resources and results in cost savings.