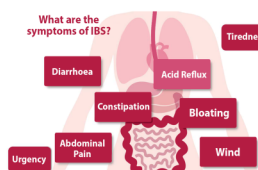


# Florence and the Low FODMAP Diet for Patients with IBS

## Background

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Irritable Bowel Syndrome (IBS) is a chronic functional bowel disorder characterised by recurrent abdominal pain associated with a change in bowel habit. IBS can be a debilitating condition which can have a significant impact on patient quality of life – many avoid social situations such as eating out, or require days off work related to their symptoms. Patients with IBS make up a large proportion of secondary care referrals to a Gastroenterology Service. Without adequate reassurance and symptom management, this patient group may request referral for further medical investigations, attend A&E or be admitted to a hospital ward as a result of their symptoms. An effective and cost efficient way of managing these patients is critical.



The Low FODMAP Diet is an evidence based dietary intervention which looks to restrict the ingestion of short chain fermentable carbohydrates, with the aim of improving IBS symptoms. Some of these carbohydrates are not absorbed in the small intestine like other food components are; but instead continue into the large intestine where they are rapidly fermented by gut bacteria. It is this fermentation process which leads to gas production and other IBS symptoms. Fermentable Oligo-saccharides, Di-saccharides, Mono-saccharides And Polyols (FODMAPs) are found in a wide range of foods (including wheat, onion, garlic, apples and honey) and need to be restricted for 6-8 weeks, before a structured re-introduction challenge phase is initiated. The Low FODMAP Diet is complex, and adequate support from a specially trained Dietitian is key in promoting patient compliance.

In 2016, with the assistance of the Technology Enabled Care team, a Florence protocol was developed within the NHS Highland Dietetic Service to help support patients to embark on the Low FODMAP Diet, after their initial consultation with a Dietitian.

## Florence

Florence ('Flo'), also known as Simple Telehealth, is an automated, interactive NHS telehealth service, which uses mobile phone text messages to support people with a wide range of health issues. Florence is completely free of charge for patients and can be used on any mobile phone.

Flo uses text messages to provide tips, advice, reminders and support to patients, to monitor their symptoms and readings, and to respond to the readings they send in, with appropriate advice.

While this is all completely automated, patients and clinicians can also use Flo to ask and answer their own questions. In this way, Flo uses technology to provide patient centred support, combining the expertise of the clinician with the convenience of the patient's own mobile phone.

Flo can be used in supported self-management, early intervention, diagnosis and prevention of a wide range of health conditions.

## Results so far...

- From October 2016 – October 2017, a total of 69 patients were enrolled onto Florence.
- 81% of patients (n=56) utilised all aspects of the Florence protocol (symptom tracking and tips/advice).
- 10% of patients (n=7) only utilised the Symptom tracking function of Florence, choosing not to respond to prompts offering additional tips/advice.
- 6% of patients (n=4) only sought additional tips and advice via Florence to facilitate their compliance with the Low FODMAP diet, and did not input their symptoms when prompted.
- 2 of the patients who consented to be enrolled onto Florence did not use the service.
- The "Ask a Question" function was added onto the Protocol at a later date (August 2017). Of those patients within the cohort who had access to this function (n=23), 44% used it to ask a question. Of those who didn't use Florence to ask a question, only 1 patient asked for additional support using another communication method (e.g. telephone/email).

## The Low FODMAP Diet Florence Protocol

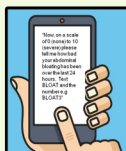
The Florence protocol designed for patients who are undertaking a Low FODMAP diet has 3 key elements:



### Symptom Tracking

This function is used to remotely track any key symptom changes at fortnightly intervals while the patient is following the Low FODMAP Diet. Areas which are monitored include: Abdominal pain, bloating, wind and stool frequency/type.

The Dietitian is able to review responses in both text and graph form, which allows them to gauge whether or not patients are symptomatically responding to the diet. Additional dietetic contact can be directed to those identified as requiring further support.



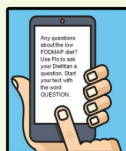
### Tips and Advice Provision

Once enrolled onto the Florence protocol, the patient will be sent regular text messages with tips and advice to further support their compliance with a Low FODMAP Diet. These messages are formatted so that the patient will receive a text which highlights the 'topic' which the advice covers – they can then choose whether they want to respond, which then triggers a series of text messages with related tips and advice.



### Ask a Question Function

This addition to the protocol allows the patient to send any specific questions they have directly to the Dietitian. This gives an alternative to traditional methods of communicating in between appointments such as telephone and email. Providing they start their text with the word QUESTION, an alert is sent directly to the managing Dietitian, who can then send a response to the patients mobile phone via the Florence system.



## Benefits and Challenges

### Benefits to the Patient:

- Ongoing access to a Dietitian using a timely and convenient method to answers to their specific questions.
- Additional tips and advice improve compliance, and boost patient motivation during the 6-8 week long restriction phase.

### Benefits to the Dietitian:

- Able to remotely monitor symptoms of a large number of patients at a time; this means dietetic resource can be effectively directed towards those patients who need further intervention.
- Reduction in time spent doing email and telephone follow-up with patients in between appointments; answering questions via Florence has proven to be time effective.

### Challenges:

- The geography of the Highlands complicates the use of Florence in the sense that some patients struggle to obtain an adequate mobile signal to send and receive messages within their home.
- Running the Florence Protocol does take up an amount of Dietetic (and Dietetic Assistant) time, and it can be difficult to fit into an already crowded day. However, we have found that the "ask a Question" function has made the use of Florence time neutral in this particular patient group.

## What next?

Our successful pilot has been able to show the benefit to both patients and clinician of using a Florence Protocol within the GI Dietetic Service for patients following a Low FODMAP Diet (either seen in a one-to-one clinic at Raigmore Hospital or at a Group Education Session within Inverness).

Our next step is to roll out this Florence Protocol throughout NHS Highland, for use by all Dietitians trained in the Low FODMAP Diet. This will sit alongside the clinic work already happening in the Community Teams; and will be incorporated into the development of community-based Low FODMAP Diet Group Education Sessions.

In addition, it is hoped that elements of this innovative method of remotely monitoring and supporting patients will be incorporated into a Scottish IBS Dietetic Pathway as part of the GI Collaboration work related to Modernising Outpatient Services.

