CPD with this article

How CCGs can Successfully and Economically Manage Gastro Conditions in the New NHS

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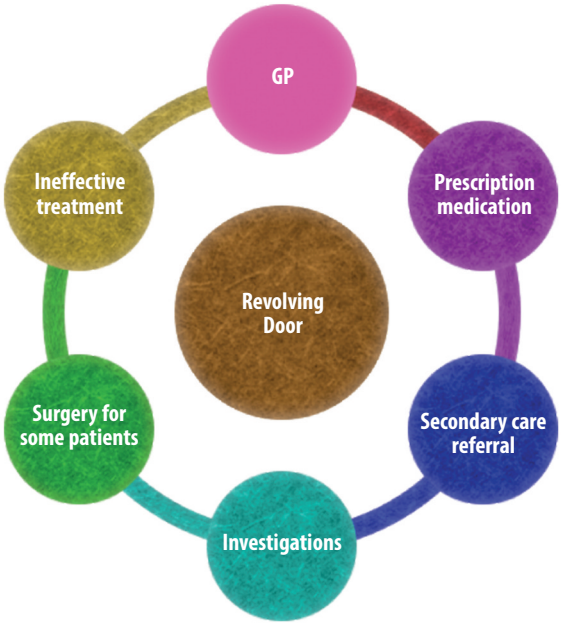
Gastrointestinal symptoms account for 10 per cent of GP consultations, 10 per cent of hospital specialist workload and 14 per cent of the drug budget.[1] Disorders such as irritable bowel syndrome (IBS), gastrointestinal allergy and coeliac disease are among a group of chronic conditions which are not only costly to treat but often result in a 'revolving door' (see **Figure 1**), where ineffective treatment and poor quality of life results in repeated attempts to seek curative therapy over many years. As the financial pressure mounts within the NHS, the new Clinical Commissioning Groups (CCGs) are increasingly looking for innovative ways to treat long-term conditions which will benefit not only the patient but also the NHS budget. This article explores how dietitians with specialist skills in gastroenterology can provide CCGs with innovative practice based solutions to effectively manage a range of gastrointestinal conditions in primary care.

Stats & facts

Irritable bowel syndrome

IBS is a common functional disorder of the gastrointestinal tract. Between 10 to 15 per cent of the UK population suffer with IBS[2] at a cost of over £45.6 million per annum,[3] with 2.34 million people seeking advice from a general practitioner (GP).[4] One in 12 GP consultations are based around gastrointestinal problems, with 46 per cent of these being diagnosed with IBS and 20 per cent of these patients being referred for costly secondary care investigations and nine per cent undergoing surgical intervention.[5] A one month audit, in 2011, found that 14.3 per cent of gastroenterology out-patients were unnecessarily referred to secondary care with IBS symptoms. These patients had no red flag symptoms and were simply referred as there were no alternative treatment pathways available. These patients cost the NHS £10,749 in just one month in two local district hospitals. This equates to an annual cost of £129,000 of unnecessary expenditure. Indeed, one can increase this cost considerably when it is considered that 47 per cent of this group had already undergone previous secondary care investigation in the 'revolving door' of diagnosis and ineffective treatment.[6]

Figure 1: The 'Revolving Door'



Coeliac disease

One in 100 people suffer with the life long gastrointestinal condition, coeliac disease.[7] If left undiagnosed, the condition can result in costly co-morbidities, such as osteoporosis, autoimmune disorders, cancer, infertility and anaemia.[8] In children it can be a significant cause of faltering growth.[8] Yet, research has shown that it takes on average 13 years to obtain a diagnosis, with 60 per cent of coeliac patients reporting that they were previously incorrectly diagnosed with IBS.[9] The charity, Coeliac UK, have stated that around 85 per cent of coeliacs remain undiagnosed, equating to over 500,000 people in the UK, with only 10 to 15 per cent of coeliacs receiving a diagnosis.[7] Adherence to a life-long gluten-free diet is the only treatment for coeliac disease and adherence to the diet is essential if comorbidities and their associated costs are to be avoided.[8] However, patient adherence to the gluten-free diet is poor, ranging from 45-87 per cent.[8] Adherence has been shown to be associated with knowledge and understanding of the condition and, hence, life long diet therapy and annual reviews are essential to the management of this condition.[9] Advice suggests that if the patient appears well, they should receive annual follow up in primary care with assessment of their compliance, nutritional status, body mass index and an osteoporosis assessment.[8]

Allergy

Allergic diseases are the most common cause of chronic illness in developed countries, with food allergy emerging as a substantial public health concern over the last 10 to 15 years.[10,11] Food allergy can cause an array of gastrointestinal conditions – gastroeosophageal reflux, eosinophilic disease in the upper and lower GI tract, gut dysmotility, oral allergy syndrome, constipation and IBS-like symptoms.[12] The costs for allergy as a whole are substantial, with 10 per cent of the primary care prescribing budget at £6.8 billion being dedicated to allergy.[13] It is noted that patients with gastrointestinal allergy are frequently wrongly diagnosed with IBS[14] and in order to save money on unnecessary costly investigations and incorrect treatments, it is important that this type of allergy is considered under the banner of 'gastroenterology' as well as the traditional specialty of immunology.

Innovation in treatment

Although individually these disorders have very specific symptoms, in reality IBS, coeliac disease and gastrointestinal allergy often exhibit almost identical symptoms, which can make diagnosis difficult and is likely to be responsible for much of the ineffective treatment. All three may show signs of abdominal pain, bloating, wind, urgent diarrhoea and/or constipation, stomach gurgling, reflux and poor energy levels, and yet at the core of all three conditions is a requirement for a completely different specialist dietary treatment. Dietitians are the only legally recognised qualified health professionals that can assess, diagnose and treat a range of medical conditions with dietary therapy.[15] Skilled dietitians are ideally placed to set up specialist dietetic-led gastroenterology services within primary care which can incorporate treatment for all three conditions within one clinic – see **Figure 2**.

Innovative service development for IBS

This innovative service model (as shown in **Figure 2**) is already being used by Somerset Partnership NHS Trust, where there has been the creation of a new role within the NHS, the 'Specialist Primary Care Gastroenterology Dietitian', and the creation of a highly successful and award winning community based dietetic-led gastroenterology clinic.[16] The business case behind the creation of this service was a Somerset secondary care audit which showed that, with the use of a specialist dietitian, the local NHS could save over £102,000 per annum by preventing non-red flag IBS referrals into secondary care (see figures below in **Table One**).[17]

At the moment this clinic focuses on IBS and gastrointestinal allergy and shows a 78 per cent success rate, with patient feedback such as: *"To think I had all these tubes pushed down me for years and all I needed to do was change my diet."* and *"This has changed my life completely. Amazing. When I had diarrhoea before it was like having a disability. Now I don't feel that way any more."*

The relatively new specialist IBS diet known as the Low FODMAP® diet accounts for 64 per cent of positive outcomes, with the remainder of patients responding to a mixture of different evidence based dietary approaches including specialist allergy and gluten-free diets. See **Figure 3**.

This clinic is presently preparing a proposal to include coeliac disease within the service and is again hoping to use innovative ideas to improve the care of coeliac patients while minimising NHS costs.

Figure 2: Specialist Dietetic-led Gastroenterology Clinics

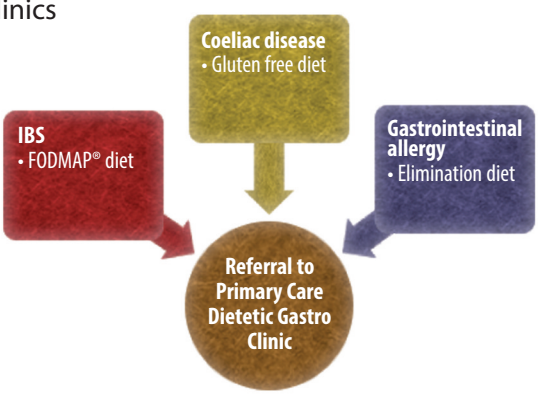


Figure 3: Somerset Dietetic-led Gastroenterology Clinic – July 2010-11th December 2012 audit data

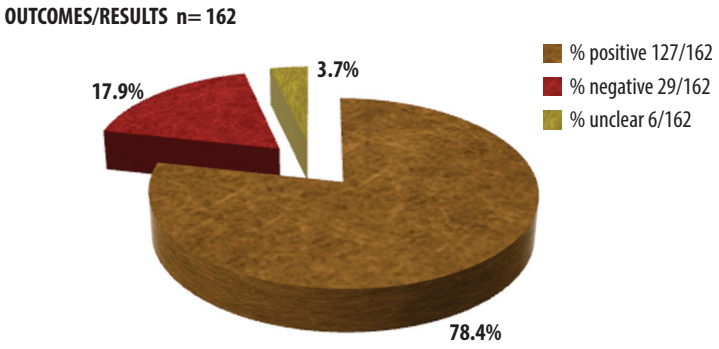


Table One: Figures from Proposal for Clinical Pathway for Management of Irritable Bowel Syndrome at Somerset NHS Trust

Number of First OP attendances where source of referral is GP Referral (based on SUS data 2010/11) for 2 local hospitals	1992
Number of suitable patients based on audit result of 14.3% of First OP attendances	285
Cost of First OP @ £287 for 285 patients	£81,754
Cost of investigations @ £278.75 for 285 patients (based on costs calculated from audit)	£79,404
Total secondary care costs for 285 patients	£161,157
Number of Faecal Calprotectin* (FC) tests	350
Cost of FC testing @ £31 per test on a cost per case basis	£10,850
Cost of dietetics service**	£48,003
Total cost of new pathway	£58,853
Savings comparison	£102,304

* To help to ensure that GPs felt comfortable referring non red flag patients under the age of 45 for dietetic treatment before referring to secondary care, the service proposal allowed GPs access to the biomarker test, Faecal Calprotectin.
** Includes 1 wte Band 6 dietitian; 0.2 wte band 3 administrator plus 15% on costs

Innovative service development for coeliac disease

Non-compliance to the gluten-free diet is the most common cause of persistent symptoms which can have serious and costly health consequences, such as cancer, autoimmune conditions, infertility and nutritional deficiencies leading to osteoporosis, anaemia, thrombosis, neurological abnormalities/impairment and repeated miscarriage.[18, 19]

Research shows that adherence to the diet requires a range of knowledge, skills and behaviour modification[20] and that there are generally three main issues that will determine patient compliance with the coeliac diet:[21]

1. Patient understanding of the gluten-free diet[22, 23]
2. Difficulties of eating away from home[23]
3. Increased costs associated with the diet

Coeliac UK, along with the National Pharmacy Association and the Pharmacy Services Negotiation Committee, have formulated the excellent concept of community pharmacy supply of gluten-free foods, which has demonstrated considerable savings through releasing GP time and preventing over prescription. Pharmacy supply schemes can manage prescriptions and potentially increase compliance among those who are highly influenced by cost or those who have found prescriptions difficult to obtain.[24] However, such schemes do not address the over-riding need for improved patient knowledge,[25] which can be achieved with long-term follow-up by a skilled practitioner.[18, 26] While the appeal of pharmacy led schemes is immediacy of savings in the region of 20 to 40 per cent,[24] the long-term costs of co-morbidity caused by poor compliance and associated on-going intestinal damage can have far reaching financial implications. For instance, research shows that 23 per cent of coeliacs will develop osteoporosis and that the prevalence increases with the duration of the disease.[27] Costs for osteoporotic fractures alone are expected to rise to £2.1 billion by 2020,[28] highlighting the need for dietary assessment and intervention to prevent the risk of developing osteoporosis with this condition.

Research repeatedly shows that compliance to the gluten-free diet and the consequent prevention of expensive co-morbidities[18, 19] is associated with expert nutritional assessment[25] and follow-up and that dietary compliance as assessed by a dietitian, which is both low in cost and non-invasive, is in fact the best marker of disease control.[19, 26, 29] Indeed, the British Society of Gastroenterology recognised in their 2010 coeliac guidelines that there was *"an urgent need to provide funding to dietetic services nationwide"*, and that this approach could be *"cost effective if the dietetic service were to replace current consultant capacity"*. Frequently, at present, coeliac patients are diagnosed within secondary care by a consultant gastroenterologist who then follows up a proportion of patients annually. This secondary care follow-up of patients with the use of gastroenterology consultants is costly and should be targeted to those patients who are non-responsive. Regular follow-up to check response and improve adherence could be more ideally provided by a skilled dietitian at a third of the cost per patient episode.

Within secondary care innovative ideas are emerging and the use of remote dietetic clinic follow-up for coeliac patients is a model already being trialled within secondary care at both Bournemouth and Southampton. These services use annual postal questionnaires with blood tests and one-to-one telephone consultations when necessary or requested. However, if one looks at the bigger picture of NHS funding and accessibility to patients, then it is possible to see the diagnosis and treatment of coeliac disease being transferred entirely into the primary care sector: the use of community hospitals for diagnostic investigations along with primary care based gastroenterologists who could refer directly into the primary care dietetic-led gastroenterology service for initial and on-going care. The repositioning of care would make the pathway for this condition substantially more streamlined and treatment for the patient more cost-effective and efficient. It would ensure that a long-term disease is suitably and appropriately followed up and would reduce the likelihood of poor compliance with the associated development of expensive comorbidities.

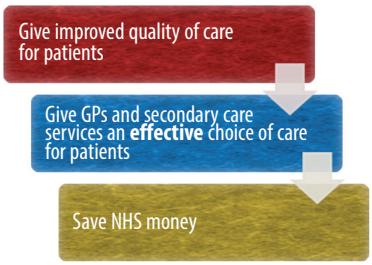
IT innovation

But the innovation need not stop there. With the recent NHS Digital First document,[30] and the NHS QIPP digital technology guide on using SKYPE within the NHS[31] as a patient medical consultation tool, it seems sensible to be building a new concept/service which includes the cost-effective provision of remote internet follow up of patients, where possible. As technology advances, this will become more widely expected and acceptable by patients and is already being trialled by South Devon Healthcare NHS Foundation Trust.[31] Using the internet will make access to HCPs easier for the patient and substantially more cost-effective for both the patient and the cash strapped NHS, while having the added benefit of creating an easy audit tool to show effectiveness.

Finally

Given an effective treatment pathway, each of these long-term costly conditions can be dealt with safely and efficiently within primary care, by a specialist community dietitian with the necessary competencies in nutrition and gastroenterology. This approach will reduce the burden on secondary care services, make treatment more accessible to patients and facilitate the self-management of several chronic gastrointestinal conditions. Fundamentally, it provides an innovative recipe for CCGs to improve patient care along with realising significant NHS savings. See Figure 4.

Figure 4: Results of an Effective Treatment Pathway



Case Study: Gastroenterology Dietetic Clinic, Bath

58 year old gentleman, Mr W with a 12 year history of bloating, altered bowel habit and persistent and troublesome reflux. Mr W had had several colonoscopies, endoscopies and biopsies in secondary care with no abnormality detected. PPIs had been prescribed for a decade, supplemented with self-administered Gaviscon® to control upper GI symptoms. Despite a 12 year history of gastrointestinal symptoms of unknown cause he had not seen a registered dietitian for dietary assessment and advice. He self-referred to a dietitian after his sister who also experienced troubling symptoms had responded to dietary intervention.

Mr W trialled a lactose-free diet as first line treatment. This had a limited effect. In view of alternating constipation and diarrhoea and a sister who had been found to be gluten sensitive despite normal small bowel biopsies, Mr W agreed to undertake a gluten-free Low FODMAP® diet. Within four weeks gastrointestinal symptoms were fully resolved. At eight weeks he undertook dietary challenge. We were able to systematically determine a sensitivity to gluten. He discontinued his PPIs and his only treatment one year on is a gluten-free diet, using naturally gluten-free foods and some specialist gluten-free alternatives purchased in supermarkets. He remains symptom free.

Whilst the initial colonoscopy, endoscopy and biopsies were justifiably appropriate, had dietetic intervention with a dietitian skilled in gastroenterology been considered much earlier in this gentleman's history, the cost of repeat colonoscopy, endoscopy and small bowel biopsies and years of PPI prescriptions could have been avoided. In the end Mr W had improved quality of life experienced at the cost of three out-patient dietetic consultations.

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