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### **Dietary guidelines for irritable bowel syndrome are important for gastroenterologists, dietitians and people with IBS**

Irritable Bowel Syndrome (IBS) is one of the most common gastrointestinal disorders experienced by the general public. IBS is not a single disease but a syndrome defined by the presence of characteristic symptoms including abdominal pain and alterations in bowel habits<sup>(1)</sup>. Though IBS does not shorten life expectancy nor predispose to gastrointestinal cancer, it can profoundly impact quality of life and work productivity. IBS has been associated with increased rates of unnecessary diagnostic testing, surgical procedures and accounts for an extensive economic cost to direct and indirect healthcare expenditure<sup>(2)</sup>.

For decades, the cornerstones of IBS treatment have been establishing a trusting and empathic patient-professional relationship and using medications targeting patients' most bothersome symptoms. Increasingly, healthcare providers are under pressure to maximize efficiency and productivity, often at the expense of the patient-professional relationship. Further, many would argue that imaging and endoscopy have replaced taking of a thorough history and listening to patients regarding their IBS symptoms. Though over-the-counter and prescription medications can be useful in some, randomised controlled trials (RCTs) show that they yield therapeutic gains of 8-20% over placebo and typically improve symptoms in fewer than half of those treated<sup>(3)</sup>.

Given the harsh realities facing many people with IBS, it is not difficult to understand why so many search for other solutions to address their symptoms. Surveys report that up to 80% of patients with IBS associate their symptoms with eating food<sup>(4)</sup>. Despite this, diet was thought to play little role in

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pathogenesis or management of IBS for many years. More recently, there has been mounting scientific evidence for the role of food in both the pathogenesis and treatment of IBS<sup>(5)</sup>. At present, the largest body of evidence supports dietary restriction of fermentable oligosaccharides, disaccharides, monosaccharides and polyols (FODMAPs) in IBS. The osmotic properties and byproducts of colonic fermentation of FODMAPs are thought to serve as important triggers for symptoms in IBS patients but not healthy individuals<sup>(6,7)</sup>.

The increase in research regarding the effect of food and diet in IBS has been remarkable, but at the same time has created challenges for gastroenterologists and dietitians who must keep abreast of the latest research findings in this area. Clinical guidelines are an opportunity for the totality of evidence to be critically reviewed to inform recommendations to be applied in practice for the benefit of patients.

The Gastroenterology Specialist Group of the British Dietetic Association have published evidence-based guidelines for the use of diet and probiotics in the management of IBS<sup>(8,9)</sup>. These are updates to the original guidelines published in 2012 that were read and applied by dietitians and gastroenterologists across the world and were widely cited by practitioners and researchers<sup>(10)</sup>.

In these updated guidelines, 12 clinical questions were posed regarding topics ranging from healthy eating and lifestyle, milk and dairy exclusion, dietary fibre, the low FODMAP diet, gluten, probiotics and elimination diets/food hypersensitivity in IBS. The guidelines were informed by systematic review of the scientific literature in these areas and 86 studies were used to generate 46 evidence statements, 15 clinical recommendations and four research recommendations together with an algorithm for dietary management of IBS<sup>(8)</sup>.

Probiotics are viewed by some patients as a natural and safe addition or alternative to pharmaceutical management<sup>(11)</sup>. The previous guidelines only included reference to studies of probiotics that were available in the United Kingdom, at that time totaling only five RCTs<sup>(10)</sup>. In contrast the current guidelines include RCTs of any probiotic, thus increasing the number of eligible studies to 35 RCTs, recognising the availability of probiotics beyond geographic boundaries (e.g. via the internet) and considerably widening the international applicability of the recommendations<sup>(9)</sup>. What is also novel is that, for the probiotic recommendations only, a systematic review of systematic reviews was adopted. This was because nine systematic reviews of probiotics in IBS have been published between 2008 and 2015, and acknowledging the futility of repeating a search for individual trials, RCTs were identified from those included in these nine previous reviews. Furthermore, a meta-analysis of probiotics in IBS was not performed, in part due

to the variations in microbiological characteristics that will impact on their clinical efficacy in IBS<sup>(12)</sup>. Instead a summary has been produced identifying which probiotics have been shown to be effective and for which symptoms in order to inform selection of the probiotics by practitioners and patients<sup>(9)</sup>.

Implementation of these evidence-based dietary guidelines has the potential to empower patients to better manage their IBS symptoms, whilst the increased demand for dietetic expertise can be met by greater resourcing of specialist dietitians and innovative models of care that can achieve both clinical and economic effectiveness<sup>(13)</sup>. We recommend these guidelines are read in detail, applied internationally and the effectiveness of the dietary interventions evaluated in practice<sup>(8,9)</sup>. However, the publication of these guidelines is not the final word on dietary modification in IBS. What is clear is that there remains a need for further well-designed, large RCTs of a range of dietary interventions in IBS that address both mechanisms of action and clinical effectiveness, as well as the impact on a wider range of outcomes including nutrient intake, quality of life and gastrointestinal microbiology and immunology, and this can only be achieved with effective collaboration between gastroenterologists and specialist dietitians.

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