Spire Leeds Hospital

Dietary Management of IBS

Julie Leaper

Senior Dietitian

24th January 2017

Spire Leeds Hospital

Aims of session

- To review current evidence based guidelines for dietary management of IBS in adults
- To describe practical suggestions for ‘first line’ dietary advice
- To explain ‘second line’ dietary advice using dietetic lead low FODMAP diet
- To review 2 patient case studies
- Spire Leeds Dietetic service

Current evidence based practice guideline (2016)

Spire Leeds Hospital

CLINICAL GUIDELINES

British Dietetic Association systematic review and evidencebased practice guidelines for the dietary management of irritable bowel syndrome in adults (2016 update)

Y. A. McKenzie,1 R. K. Bowyer,2 H. Leach,3 P. Gulia,4 J. Horobin,5 N. A. O'Sullivan,6 C. Pettitt,7
L. B. Reeves,8 L. Seamark,9 M. Williams,9 J. Thompson,10 M. C. E. Lomer6,11 (IBS Dietetic Guideline
Review Group on behalf of Gastroenterology Specialist Group of the British Dietetic Association)

Current evidence based practice guideline (2016)

Spire Leeds Hospital

- **Methods**
- 86 studies produced:

46 evidence statements

15 clinical recommendations

4 research recommendations

Updated IBS algorithm – changed to 2 tiered

International

Current evidence based practice guideline (2016)

Spire Leeds Hospital

Hayes P., Corish C., O'Mahony E. & Quigley E.M.M. (2014) A dietary survey of patients with irritable bowel syndrome. *J Hum Nutr Diet.* **27** (Suppl. 2), 36–47

- Patient perception-
- 135 patients (91.1% female)with IBS received a questionnaire
- Perception of the role of diet in symptoms and whether they restrict their diet accordingly
- Compared to 111 healthy subjects with GI symptoms when they consume food

Current evidence based practice guideline (2016)

Spire Leeds Hospital

- 89.6% pts with IBS considered food caused or worsened GI symptoms compared to 55% health individuals ($p<0.001$)
- In particular:
- Cereal (55.3%, $p<0.001$)
- Spicy foods (39.3%, $p<0.01$)
- Vegetable (48%, $p<0.001$)
- Fatty foods (48%, $p<0.01$)
- Animal protein (41%, p0.001)
- Milk (33%, $p<0.01$)
- Fruits, nuts & seeds (27%, $p<0.001$)
- Alcohol (19%, $p<0.01$)
- Caffeine (16%, $p<0.01$)

Current evidence based practice guideline (2016) **First Line**

Spire Leeds Hospital

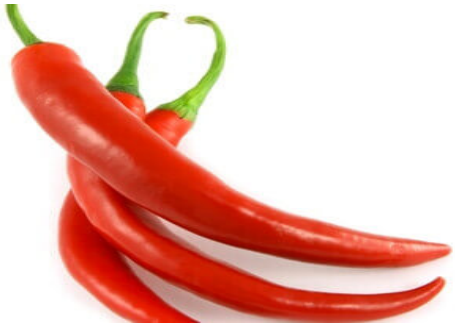
- Healthy eating and lifestyle
- Check for food intolerance especially milk/lactose, usually considered as part of low FODMAP diet
- Lack of high quality evidence
- Low lactose diet if suspect sensitivity to milk D
- Low lactose diet with a positive lactose hydrogen breath test D

Current evidence based practice guideline (2016) **First Line**

Spire Leeds Hospital

- **ALCOHOL**
- Assess intake, review symptoms, ?reduce, ensure within safe limits C

- **SPICY**
- Can induce symptoms in IBS-D particularly men. C
- Review onions/ garlic



Current evidence based practice guideline (2016) **First Line**

Spire Leeds Hospital

- **CAFFEINE**
- Insufficient or no evidence to make recommendation
- Increase gastric acid secretion/ colonic motor activity in healthy subjects
- Consider fluid/assess intake D
- Gradual increase fluid to

improve stool frequency/ laxatives

in IBS-C

Current evidence based practice guideline (2016) **First Line**

Spire Leeds Hospital

- **FAT**
- Fat increased IBS symptoms C
- Decreased fat intake may help meal related pain and discomfort associated with visceral hypersensitivity
- Ensure in line with national healthy eating guidelines

Current evidence based practice guideline (2016) **First Line**

Spire Leeds Hospital

- **FIBRE**
- Do not add wheat bran C
- Increase dietary fibre from cereals/fruit C
- Trial linseeds for 3 months, up to 2 tablespoons per day via gradual increase C – consume with fluid
- Insufficient evidence psyllium husk supplement C
- No evidence for Chia seeds (research gap)

Current evidence based practice guideline (2016)

First Line

https://www.bda.uk.com/foodfacts/IBSfoodfacts.pdf

Spire Leeds Hospital

BDA The Association of UK Dietitians

Food Fact Sheet

Irritable Bowel Syndrome and Diet

Irritable Bowel Syndrome (IBS) is a medical term used to describe a collection of gut symptoms.

Symptoms vary from one individual to another and can be worse for some than others. It is a very common condition affecting around one in five adults. An assessment for IBS should be considered if you have had any of the following symptoms for at least six months: abdominal pain or discomfort, bloating, or change in bowel habit.

A diagnosis of IBS should be considered only if there is abdominal pain or discomfort that is either relieved by defaecation or associated with a change in bowel habit. This should be accompanied by at least two of the following four symptoms:

- altered stool passage (straining, urgency, incomplete evacuation)
- abdominal bloating (more common in women than men), distension, tension or hardness
- symptoms made worse by eating
- passage of mucus.

Other features such as lethargy, nausea, backache and bladder symptoms are common in people with IBS, and may be used to support the diagnosis. It is important to

- reduce intake of fizzy drinks
- drink at least eight cups of fluid per day, especially water or other non-caffeinated drinks, for example herbal teas
- cut down on rich or fatty foods including chips, fast foods, pies, batter, cheese, pizza, creamy sauces, snacks such as crisps, chocolate, cake and biscuits, spreads and cooking oils, and fatty meats such as burgers and sausages

Current evidence based practice guideline (2016) **Second line Low FODMAP evidence**

Spire Leeds Hospital

F
O
D
M
A
P

Fermentable

Oligosaccharrides

Disaccharides

Monosaccharides

and

Polyols

Current evidence based practice guideline (2016) **Second line Low FODMAP evidence**

Spire Leeds Hospital

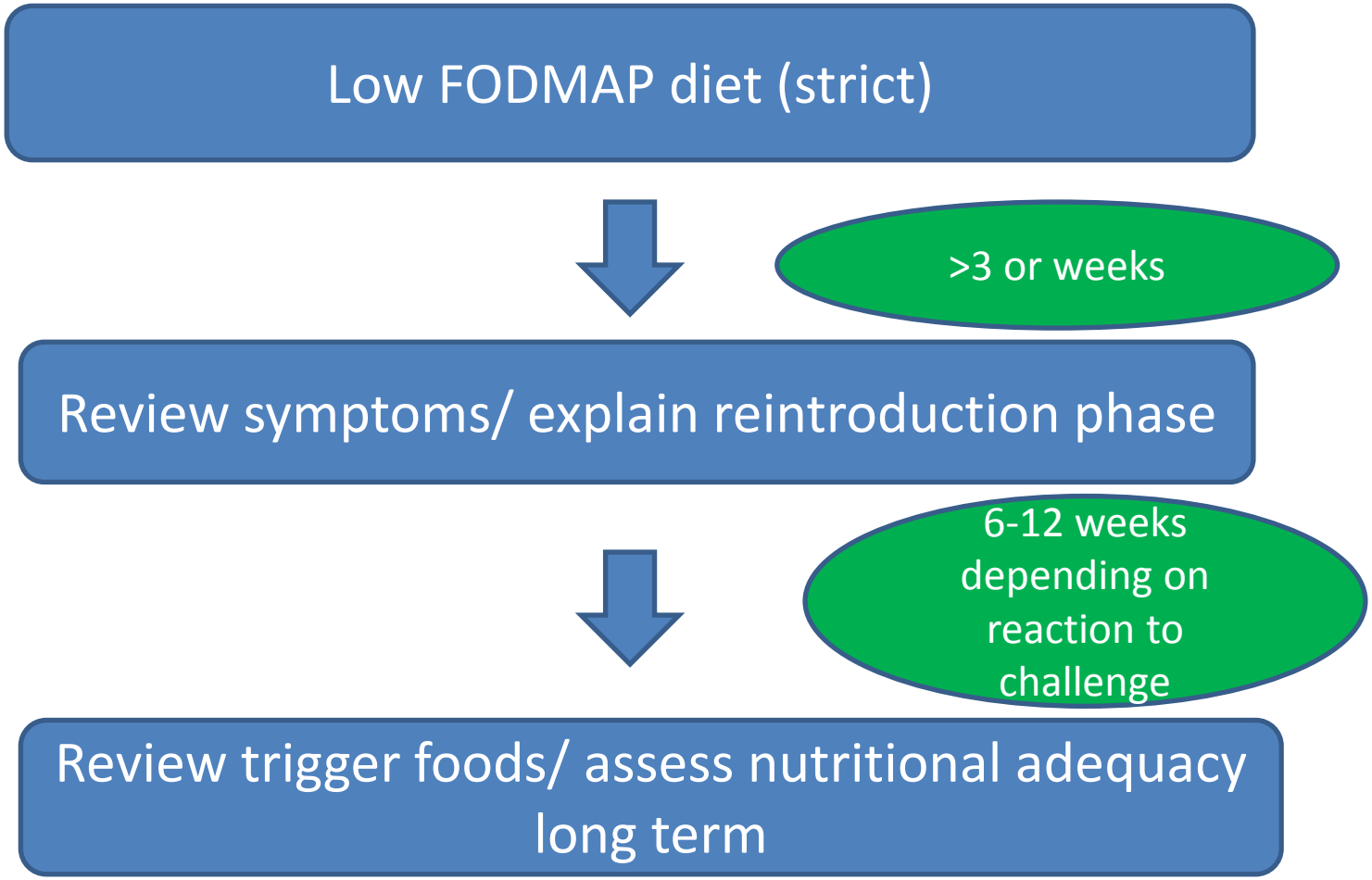
- Poorly absorbed into the small intestine
- Small and osmotically active molecules
- Rapidly fermented by bacteria, dictated by the chain length of CHO
  - Oligosaccharides and sugars rapidly ferment compared to polysaccharides e.g. dietary fibre

AIM: reduce the intake of all poorly absorbed shor chain CHO to more effectively reduce luminal distension than concentrating on only one area

Gibson & Shepherd (2010) Evidence-based dietary management of functional gastrointestinal symptoms: The FODMAP approach . J Gastro & Hep 25:252-258

Current evidence based practice guideline (2016) **Second line Process**

Spire Leeds Hospital



Current evidence based practice guideline (2016) **Second line**
Low FODMAP evidence

Spire Leeds Hospital

- **Ong et al** (2010) RCT, single blinded, crossover feeding trial (short duration)
- 2d low FODMAP diet vs high FODMAP diet
- Increased gut symptoms in IBS on HFD
- **Staudacher et al** (2012) RCT (no placebo diet)
- 4 week LFD vs habitual diet
- 68% adequate symptom improvement in LFD vs 23% in control

Current evidence based practice guideline (2016) **Second line**
Low FODMAP evidence

Spire Leeds Hospital

- **Halmos et al** (2014) RCT single blind, crossover feeding trial (Feeding study)
- 3 wk LFD vs typical Australian diet
- 70% participants clinically significant decrease in gut symptoms
- **McIntosh et al** (2016) RCT, single blind (no ITT/ baseline dietary intake measured)
- 3 wk LFD vs HFD
- 72% responders LFD vs 21% in HFD

Current evidence based practice guideline (2016) **Second line FRUCTANS**

Spire Leeds Hospital

- **Cereals**

Barley

Rye

Wheat

- **Fruit**

Apricot

Grapefruit*

Nectarine

Peach

Plum/prune

Pomegranate*

Watermelon

- **Veg**

Asparagus*

Beetroot*

Broccoli*

Brussel sprouts*

Onion

Chicory root

Dandelion tea

Fennel*

Garlic

Jerusalem artichoke

Savoy cabbage*

Spring onion

Leek

Mange tout*

Okra*

- **Fibre supp**

FOS, inulin, Oligofructose

Current evidence based practice guideline (2016) **Second line GOS**

Spire Leeds Hospital

- **Veg**

Chick peas
Lentils
Kidney beans
Soya beans
Butter beans
Broad beans
Black eyed peas
Peas*
Butternut squash*
Mange tout*
Sweetcorn*

- **Nuts**

Cashews
Pistachios

- **Grains**

Amaranth
Barley
Rye
Wheat

Current evidence based practice guideline (2016) **Second line Lactose**

Spire Leeds Hospital

- >4g lactose not tolerated in one meal
- Dose level dependent Not lactose free

Food	Lactose content (g)
Milk (250ml)	15
Yoghurt (200g pot)	8
Custard (½ cup)	6
Ice cream (1 scoop)	5
Cheese – ricotta, cottage (3tbsp)	4
Chocolate (50g)	4
Cheese – cheddar, brie, stilton, edam, feta, goats,mozzarella (30g)	<1
Butter, cream, crème fraiche, sour creme	trace

Lomer, M. Kings College Hospital

Current evidence based practice guideline (2016) **Second line**

Fructose

- **Fruit (fresh, dried, juice)**

Boysenberry

Cherry

Fig (fresh)

Mango

Tinned fruit in apple/pear juice

- **Veg**

Artichoke hearts

Asparagus

Jerusalem artichokes

Sugar snaps

- **Other foods**

Honey

Agave nectar

Fructose sweeteners

Rye Bread

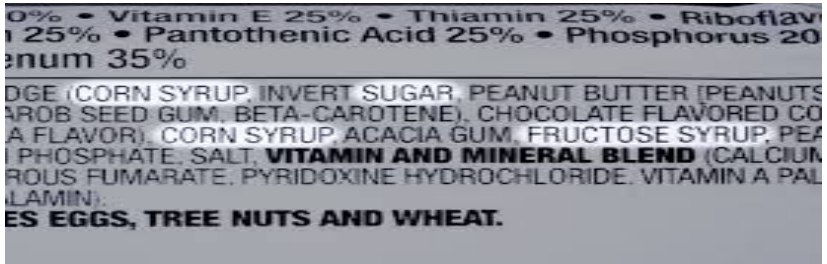
- **Added fructoce**

Fructose, fructose syrup

Glucose-fructose syrup

Fructose-glucose syrup

High fructose corn syrup



Current evidence based practice guideline (2016) **Second line Sorbitol**

Spire Leeds Hospital

- **Fruit**

Apple
Apricot
Blackberry
Coconut*
Cherry*
Lychee*
Nectarine
Peach
Pear
Plum

- **Veg**

Avocado*
Broccoli*
Sweetcorn*

Current evidence based practice guideline (2016) **Second line Mannitol**

Spire Leeds Hospital

- **Fruit**

Watermelon

- **Veg**

Butternut squash*

Cauliflower

Celery*

Fennel*

Mange tout*

Mushroom

Sweet potato*

Current evidence based practice guideline (2016) **Second line**

Spire Leeds Hospital

- **Polyol**

Sorbitol

Erthyritol

Mannitol

Xylitol

Isomalt

Lactitol

Malitol

Current evidence based practice guideline (2016)**Probiotics**

Spire Leeds Hospital

BDA The Association of UK Dietitians
THE OFFICIAL JOURNAL OF THE BRITISH DIETETIC ASSOCIATION
Journal of Human Nutrition and Dietetics

CLINICAL GUIDELINES

British Dietetic Association systematic review of systematic reviews and evidence-based practice guidelines for the use of probiotics in the management of irritable bowel syndrome in adults (2016 update)

Y. A. McKenzie,[1] J. Thompson,[2] P. Gulia[3] & M. C. E. Lomer[4,5] (IBS Dietetic Guideline Review Group on behalf of Gastroenterology Specialist Group of the British Dietetic Association)

Current evidence based practice guideline (2016)**Probiotics**

Spire Leeds Hospital

- Substantial symptom benefit is unlikely B
- Safe in IBS B
- One at a time, > 4 weeks

- No clear probiotic recommendation

Patient case study - Referral

Spire Leeds Hospital

- Miss C
- 24 years old
- Diagnosed IBS age 15
- Referred to gastroenterologist after increase in symptoms for 1 year.
- PMHx Sertraline for anxiety
- Non smoker, minimal alcohol
- BO 5-8x/d loose, occasionally woken at night with lower abdo pain and urgency
- Abdo bloating/ lethargy
- Diet quite high in insoluble fibre, tried gluten free, no benefit
- Buscopan recommended instead of Mebeverine
- Imodium prn

Patient case study – Dietetic review

Spire Leeds Hospital

- ?issues with lactose early age
- Tried low FODMAP symptoms slightly better but not avoiding FOS, inulin
- Gluten free for 1 year
- Symptom evaluation:

Severe: Abdo pain, bloating, urgency, incomplete evacuation

Moderate: increased flatulence, borborygmi, nausea and lethargy

BO 4-6x/d, Type 2-3 or Type 6-7

Patient case study – Dietetic review

Spire Leeds Hospital

- ?issues with lactose early age
- Tried low FODMAP symptoms slightly better but not avoiding FOS, inulin
- Gluten free for 1 year
- Symptom evaluation:

Severe: Abdo pain, bloating, urgency, incomplete evacuation

Moderate: increased flatulence, borborygmi, nausea and lethargy

BO 4-6x/d, Type 2-3 or Type 6-7

Patient case study – Dietetic review

Spire Leeds Hospital

- **6 week** review after low FODMAP diet
- NO symptoms
- Felt very well
- Reintroduced bread/ pasta no symptoms
- Yogurt – increased BO severe within 10 mins
- **Final review** after reintroduction
- Tolerance level to milk/lactose
- Occasional wind with increased pulses
- Lacto free milk
- Symptoms all resolved

Patient case study - Referral

Spire Leeds Hospital

- Mrs B
- Age 47 PMHx Asthma
- Non smoker, minimal alcohol
- Housewife
- Exercises 15-16 hours per week
- Well until Jan 2016 developed abdo bloating, intermittent abdo pain, fluctuating bowel habit, lethargy
- Felt symptoms worse with pasta/ bread
- No recent acute enteric infections
- Tried Mebeverine, Buscopan, peppermint oil, no benefit
- Diet high in juiced ft and veg, salad, cereal
- IBS diagnosed

Patient case study – Dietetic review

Spire Leeds Hospital

- Changed to decreased fibre foods but symptoms not resolved, slightly better BO
- Symptom evaluation:
- Mild: abdo pain, wind, borborygmi
- Moderate: bloating, lethargy
- BO x1/d with Senokot Type 1-2
- Diet Hx – pulses++, honey, agave nectar, smoothies, ft juice>100mls

Patient case study – Dietetic review

Spire Leeds Hospital

- **6 week review**
- Significant improvement 2 weeks after starting low FODMAP diet
- No symptoms, very mild lethargy
- Bowels normal
- Pt very happy
- **Final review**:
- Milk – better on lacto free
- Avoids onion, garlic, cauliflower
- Small amount bread tolerated

Spire Dietetic service

Spire Leeds Hospital

- Primary care first line advice via BDA fact sheet
- For referral to Spire Dietitian either confirmed diagnosis of IBS direct GP letter to dietetic department or refer to gastroenterologist who will refer after review as required.
- Dietitian will see patient within 2-3 weeks
- Currently 1 Kings College Hospital specialist low FODMAP trained dietitian and 1 dietitian about to finish training in March 2017

Spire Dietetic service

Spire Leeds Hospital

- Self pay £349 package price (low FODMAP)
  - 60 min initial assessment appointment and low FODMAP advice
  - 2 week phone contact to check progress
  - 30 min appointment at 6 weeks to explain reintroduction phase/ review symptoms
  - 30 min appointment at 12 weeks to check outcomes of reintroduction/ nutritional adequacy of long term diet

Spire Dietetic service

- Insured patients
  - Depends on cover
  - Most often allowed 1 new and 1-2 follow up appointments which will be adequate in most cases

Spire Leeds Hospital

Questions?