National Institute for Health and Care Excellence

Surveillance programme

Surveillance proposal consultation document

Irritable bowel syndrome NICE guideline CG61 – 8-year surveillance review

Background information

Guideline issue date: February 2008

3-year review (no update)*

6-year review (yes to update)

*Although the 3-year review decision was no update, the findings were subsequently used to pilot the NICE's rapid update process.

Surveillance proposal for consultation

We will not update the guideline at this time.

Reason for the proposal

New evidence

We found 105 new studies in a search for randomised controlled trials (RCTs) and systematic reviews published between 01 September 2013 and 18 July 2016. We also considered studies identified by members of the guideline committee who originally worked on this guideline.

Evidence identified in previous surveillance 3 years and 6 years after publication of the guideline was also considered. This included 52 studies identified by search.

From all sources, 157 studies were considered to be relevant to the guideline.

This included new evidence that is consistent with current recommendations on:

- diagnosis of irritable bowel syndrome (IBS)
- dietary interventions
- physical activity interventions
- drug treatments (antispasmodics, laxatives, anti-motility agents and antidepressants)
- psychotherapy
- hypnotherapy, biofeedback and relaxation therapy
- acupuncture and
- patient information.

We also identified new evidence in the following areas that was inconsistent with, or not covered by, current recommendations, but the evidence was not considered to impact on the guideline:

- ondansetron
- vitamin D supplementation
- herbal medicines.

We did not find any new evidence on reflexology, psychosocial interventions, or self-help and support groups.

None of the new evidence considered in surveillance of this guideline was thought to have an effect on current recommendations. We asked topic experts whether this new evidence would affect current recommendations on IBS. Generally, the topic experts thought that an update was not needed.

No equalities issues were identified during the surveillance process.

Overall decision

After considering all the new evidence and views of topic experts, we decided not to update this guideline.

Further information

See appendix A: summary of new evidence from surveillance below for further information.

For details of the process and update decisions that are available, see ensuring that published guidelines are current and accurate in 'Developing NICE guidelines: the manual'.

Appendix A: summary of new evidence from surveillance

Diagnosis of irritable bowel syndrome (IBS)

Preamble to the recommendations in this section of the guideline

Confirming a diagnosis of IBS is a crucial part of this guideline. The primary aim should be to establish the person's symptom profile, with abdominal pain or discomfort being a key symptom. It is also necessary to establish the quantity and quality of the pain or discomfort, and to identify its site (which can be anywhere in the abdomen) and whether this varies. This distinguishes IBS from cancer‑related pain, which typically has a fixed site.

When establishing bowel habit, showing people the Bristol Stool Form Scale (see appendix I of the full guideline) may help them with description, particularly when determining quality and quantity of stool. People presenting with IBS symptoms commonly report incomplete evacuation/rectal hypersensitivity, as well as urgency, which is increased in diarrhoea‑predominant IBS. About 20% of people experiencing faecal incontinence disclose their incontinence only if asked. People who present with symptoms of IBS should be asked open questions to establish the presence of such symptoms (for example, 'tell me about how your symptoms affect aspects of your daily life, such as leaving the house'). Healthcare professionals should be sensitive to the cultural, ethnic and communication needs of people for whom English is not a first language or who may have cognitive and/or behavioural problems or disabilities. These factors should be taken into consideration to facilitate effective consultation.

61–01 What is the clinical utility and diagnostic accuracy of different diagnostic criteria for people with IBS?

Subquestions

What is the clinical utility of diagnostic tests to exclude alternative diagnoses in people meeting the diagnostic criteria for IBS?

What is the cost-effectiveness of tests to identify alternative diagnoses in patients meeting the diagnostic criteria for IBS who do not have any "red-flag" symptoms?

Recommendations derived from this question

1.1.1.1 Healthcare professionals should consider assessment for IBS if the person reports having had any of the following symptoms for at least 6 months:

- Abdominal pain or discomfort

- Bloating
- Change in bowel habit. [2008]

1.1.1.2 All people presenting with possible IBS symptoms should be asked if they have any of the following 'red flag' indicators and should be referred to secondary care for further investigation if any are present:*

- unintentional and unexplained weight loss
- rectal bleeding
- a family history of bowel or ovarian cancer
- a change in bowel habit to looser and/or more frequent stools persisting for more than 6 weeks in a person aged over 60 years. [2008]

1.1.1.3 All people presenting with possible IBS symptoms should be assessed and clinically examined for the following 'red flag' indicators and should be referred to secondary care for further investigation if any are present:*

- anaemia
- abdominal masses
- rectal masses
- inflammatory markers for inflammatory bowel disease.

  Measure serum CA125 in primary care in women with symptoms that suggest ovarian cancer in line with the NICE guideline on ovarian cancer.**[2008]

1.1.1.4 A diagnosis of IBS should be considered only if the person has abdominal pain or discomfort that is either relieved by defaecation or associated with altered bowel frequency or stool form. 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. [2008]

1.1.2.1 In people who meet the IBS diagnostic criteria, the following tests should be undertaken to exclude other diagnoses:

- full blood count (FBC)
- erythrocyte sedimentation rate (ESR) or plasma viscosity
- c reactive protein (CRP)
- antibody testing for coeliac disease (endomysial antibodies [EMA] or tissue transglutaminase [TTG]). [2008]

1.1.2.2 The following tests are not necessary to confirm diagnosis in people who meet the IBS diagnostic criteria:

- ultrasound
- rigid/flexible sigmoidoscopy
- colonoscopy; barium enema
- thyroid function test
- faecal ova and parasite test
- faecal occult blood
- hydrogen breath test (for lactose intolerance and bacterial overgrowth). [2008]

* See NICE's referral guidelines for suspected cancer for detailed referral criteria where cancer is suspected.

** This recommendation was updated in September 2012 in line with more recent guidance on the recognition and management of ovarian cancer in the NICE guideline on ovarian cancer.

Surveillance decision

This review question should not be updated.

An editorial change is necessary to recommendations 1.1.1.2 and 1.1.1.3, which have been superseded by recommendations on colorectal cancer and ovarian cancer in Suspected cancer: recognition and referral (NICE guideline NG12).

Bile acid malabsorption

3-year surveillance summary

A systematic review[1] of 18 studies (n=1,223) assessed the prevalence of idiopathic bile acid malabsorption in people with diarrhoea-predominant IBS. Overall about 10% of people with IBS had severe bile acid malabsorption, 32% had moderate bile acid malabsorption, and 26% of people had mild bile acid malabsorption.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A systematic review and meta-analysis[2] of 6 studies (n=908) assessed the prevalence of bile acid malabsorption in people with diarrhoea-predominant IBS. Bile acid malabsorption was defined as 7-day SeHCAT retention of <10%. Overall, 28.1% of people with diarrhoea-predominant IBS had bile acid malabsorption.

Topic expert feedback

Topic expert feedback suggested that SeHCAT testing should be addressed in an update to CG61.

Impact statement

The evidence suggests that a substantial proportion of people diagnosed with diarrhoea-predominant IBS may have bile acid malabsorption.

NICE has produced SeHCAT (tauroselcholic [75 selenium] acid) for the investigation of diarrhoea due to bile acid malabsorption in people with diarrhoea-predominant irritable bowel syndrome (IBS-D) or Crohn's disease without ileal resection (NICE diagnostics guidance DG7). This recommends use of SeHCAT testing in research only.

Although this recommendation has not been incorporated into NICE CG61, it is part of the IBS Pathway, therefore adding the recommendation to the guideline is not necessary at this time.

New evidence is unlikely to change guideline recommendations.

Faecal markers

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A diagnostic study[3] (n=66) assessed faecal calprotectin testing for distinguishing between IBS and inflammatory bowel disease. Using the cut-off value recommended by the manufacturer (50 micrograms/g), sensitivity was 100%, specificity was 52.4%, positive predictive value was 70.6%, and negative predictive value was 100%. At higher cut-off values specificity increased at the expense of lower sensitivity.

A systematic review and meta-analysis[4] of 7 studies (n=1,012) assessed faecal lactoferrin in distinguishing between IBS and inflammatory bowel disease. Faecal lactoferrin had pooled sensitivity of 78%, specificity of 94%, positive likelihood ratio of 12.31, and negative likelihood ratio of 0.23.

Topic expert feedback

Topic experts indicated that an update should look at faecal markers, especially faecal calprotectin.

Impact statement

Evidence suggests that faecal calprotectin testing is useful for distinguishing IBS from inflammatory bowel disease.

NICE has produced Faecal calprotectin diagnostic tests for inflammatory diseases of the bowel NICE diagnostics guidance DG11, which recommends this test. Although this recommendation has not been incorporated into NICE CG61, it is part of the IBS Pathway, therefore adding the recommendation to the guideline is not necessary at this time.

New evidence is unlikely to change guideline recommendations.

Diagnostic criteria

3-year surveillance summary

A systematic review[5] of 10 studies (n=2,355) found an overall prevalence of IBS in 57% of people presenting with symptoms. Individual symptoms were reported to have 'limited accuracy for diagnosing IBS'. The accuracy of the Manning criteria and Kruis scoring system were reported to be modest.

A systematic review[6] of 25 diagnostic studies (number of participants not reported in the abstract) noted that none of the symptom-based criteria showed sufficiently homogenous and favourable results to exclude organic disease.

A systematic review[7] assessed 14 studies (case series and case-control studies; n=4,204) in which people under investigation for IBS had serological tests for coeliac disease. People meeting diagnostic criteria for IBS had significantly higher likelihood of antibodies or biopsy results suggestive of coeliac disease.

A systematic review[8] of 12 studies (case series and case-control studies; n=1,921) assessed presence of small intestinal bacterial overgrowth in people meeting diagnostic criteria for IBS. The prevalence of small intestinal bacterial overgrowth was highest with breath testing and varied according to criteria used to define a positive test.

A systematic review[9] of 11 case-control studies (number of participants not reported in the abstract) assessed breath testing for bacterial overgrowth in people with IBS compared with control. Abnormal breath testing was seen more often in people with IBS than in controls, particularly in studies that matched for age and sex.

6-year surveillance summary

A systematic review and meta-analysis[10] of 9 case-control studies (n=1,030 cases and n=453 controls) assessed breath testing in people with IBS. Abnormal breath testing, commonly early and elevated hydrogen peaks, was seen more often in people with IBS than in controls, particularly in studies that matched for age and sex.

8-year surveillance summary

A systematic review and meta-analysis[11] of 22 studies (n=7,106) assessed diagnosing irritable bowel syndrome with symptoms, biomarkers or psychological markers. The authors concluded that 'symptom-based diagnostic criteria, biomarkers and psychological markers performed modestly in predicting IBS'.

Topic expert feedback

Topic expert feedback noted that new diagnostic criteria (Rome IV) have been published. Previous Rome criteria were partially used in developing the diagnostic recommendations in the guideline.

Impact statement

The evidence suggests that differential diagnosis of IBS remains challenging, with no clear progress since development of NICE CG61. Although new Rome IV diagnostic criteria have been published, the recommendations in NICE CG61 were not based entirely on Rome III. The Rome diagnostic criteria may not be suitable for widespread use in the NHS because of copyright and licensing restrictions set by the developers.

New evidence is unlikely to change guideline recommendations.

61–02 What associations are there between diet and IBS?

Subquestion

What dietary interventions improve symptoms / quality of life?

Recommendations derived from this question

1.2.1.1 People with IBS should be given information that explains the importance of self‑help in effectively managing their IBS. This should include information on general lifestyle, physical activity, diet and symptom‑targeted medication. [2008]

1.2.1.4 Diet and nutrition should be assessed for people with IBS and the following general advice given.

- Have regular meals and take time to eat.
- Avoid missing meals or leaving long gaps between eating.
- Drink at least 8 cups of fluid per day, especially water or other non-caffeinated drinks, for example herbal teas.
- Restrict tea and coffee to 3 cups per day.
- Reduce intake of alcohol and fizzy drinks.
- It may be helpful to limit intake of high fibre food (such as wholemeal or high fibre flour and breads, cereals high in bran, and whole grains such as brown rice).
- Reduce intake of 'resistant starch' (starch that resists digestion in the small intestine and reaches the colon intact), which is often found in processed or re cooked foods.
- Limit fresh fruit to 3 portions per day (a portion should be approximately 80 g).
- People with diarrhoea should avoid sorbitol, an artificial sweetener found in sugar free sweets (including chewing gum) and drinks, and in some diabetic and slimming products.
- People with wind and bloating may find it helpful to eat oats (such as oat based breakfast cereal or porridge) and linseeds (up to 1 tablespoon per day). [2008]

Surveillance decision

This review question should not be updated.

Fibre modification

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

No relevant evidence was identified.

Topic expert feedback

Topic expert feedback suggested that an update was needed to the recommendation on dietary advice, specifically the bullet on fibre intake.

Impact statement

New evidence on dietary fibre is addressed specifically by review question 61-04 below.

New evidence is unlikely to change guideline recommendations.

61–03 Do exclusion diets improve IBS or related symptoms?

Subquestion

Does a low FODMAP diet have an effect on the symptoms of IBS?

Recommendations derived from this question

1.2.1.8 If a person's IBS symptoms persist while following general lifestyle and dietary advice, offer advice on further dietary management. Such advice should:

- include single food avoidance and exclusion diets (for example, a low FODMAP [fermentable oligosaccharides, disaccharides, monosaccharides and polyols] diet)
- only be given by a healthcare professional with expertise in dietary management. [new 2015]

Surveillance decision

This review question should not be updated.

Low FODMAP diet

3-year surveillance summary

This review question was updated in 2015. Evidence identified in 3-year surveillance was available for consideration in the update.

6-year surveillance summary

This review question was updated in 2015. Evidence identified in 6-year surveillance was available for consideration in the update.

8-year surveillance summary

A systematic review and meta-analysis[12] of 6 RCTs and 16 non-randomised studies (number of participants not reported in the abstract) assessed a low FODMAP diet in people with IBS. A low FODMAP diet was associated with lower symptom severity scores and improved quality of life in the RCTs and in the non-randomised studies. However, it was not clear from the abstract what comparator interventions were used in the included studies.

A 6-week RCT[13] (n=123) assessed a low FODMAP diet compared with the probiotic *Lactobacillus rhamnosus* GG or with normal diet in people with IBS. The low FODMAP diet was associated with significant reductions in symptom severity score compared with normal diet. There was no significant difference in quality of life.

A 4-week RCT[14] (n=87) assessed low FODMAP rye bread compared with regular rye bread in people with IBS. Flatulence, abdominal pain, cramps and stomach-rumbling were significantly 'milder' with the low-FODMAP rye bread. However, IBS symptom severity scores and quality of life did not show significant differences.

A 4-week cross-over RCT[15] (n=75) assessed a low FODMAP diet compared with standard dietary advice in people with IBS. Symptoms reduced significantly in both groups after the dietary intervention compared with before. However, the difference between the diets was not significant.

A 6-week RCT[16] (n=74) assessed hypnotherapy compared with a low FODMAP diet and with both interventions. Improvements in overall symptoms were not significantly different between groups.

Topic expert feedback

Topic expert feedback noted the increasing evidence-base for a low-FODMAP diet.

Impact statement

The new evidence suggests that a low FODMAP diet is associated with reductions in symptom severity in people with IBS. This is consistent with current recommendations, which include a low-FODMAP diet as one potential dietary intervention. However, all identified studies had short durations (maximum of 6 weeks), so the long-term effects of low FODMAP diets remain unclear.

New evidence is unlikely to change guideline recommendations.

Exclusion diets

3-year surveillance summary

An RCT[17] assessed a 2-week re-challenge diet with 10-day washout between challenges in people with IBS who were on a fructose-restricted diet. Significantly more people reported inadequate control of IBS symptoms when fructose, fructans or both were reintroduced, compared with glucose control.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A systematic review and meta-analysis[18] assessed elimination diets in people with IBS. From 17 RCTs (n=1,568) only 3 studies (n=230) met the authors eligibility criteria. The 3 studies assessed different diets and could not be pooled in a meta-analysis. The authors concluded that 'more evidence is needed before recommending elimination diets'.

A 6-week RCT[19] (n=148) assessed a gluten-free diet compared with control in people with IBS. In the gluten-free diet group, 72 people completed the study, and were re-randomised to receive powdered gluten or placebo. A significantly lower proportion of people in the gluten group had improved symptoms compared with the placebo group.

A 4-week RCT[20] (n=45) assessed a gluten-free diet compared with gluten-containing diet in people with diarrhoea-predominant IBS. Genetic testing was also undertaken. People on the gluten-containing diet had significantly more bowel movements per day. The gluten-containing diet had a larger effect on people who were positive for the coeliac-disease-associated gene HLA-DQ2/8 compared with those who tested negative for this gene.

A cross-over RCT[21] (n=21) assessed an elimination diet compared with provocation diets in people with IBS and migraine. The elimination and provocation diets were based on results of immunoglobulin G testing of 270 potential food allergens. The elimination diet was associated with significantly lower severity of pain and bloating and improved quality of life compared with the provocation diet.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

The evidence suggests that a variety of exclusion diets may improve symptoms of IBS. No one diet is likely to be effective across all patients, therefore the current recommendation, for healthcare professionals with expertise in dietary management to provide advice on single-food restriction and elimination diets, remains relevant.

New evidence is unlikely to change guideline recommendations.

Dietary supplements

3-year surveillance summary

An 8-week RCT[22] (n=82) assessed a diet with cereals processed to induce anti-secretory factor compared with placebo. Symptoms improved in both the intervention and the placebo group.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A 6-week RCT[23] (n=67) assessed soy isoflavone capsules compared with placebo in people with IBS. Symptom severity scores did not differ significantly between the soy isoflavone and placebo groups. Quality of life was significantly improved in the soy isoflavone group compared with placebo.

A 12-week controlled clinical trial[24] (n=125) assessed alpha-galactosidase compared with placebo in people with IBS. The authors noted that alpha-galactosidase 'showed a trend towards' reduced severity of symptoms. However, significantly more people in the alpha-galactosidase group withdrew from the study, often because of abdominal pain and diarrhoea.

A 6-month RCT[25] (n=90) assessed supplementation with 50,000 IU vitamin D3 compared with placebo in people with IBS. Symptom severity was significantly lower, and quality of life was significantly higher in the vitamin D supplementation group compared with the placebo group.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Studies of dietary supplements show mixed results: soy isoflavones appears to not be particularly effective and alpha-galactosidase appears to not be well tolerated. Vitamin D supplementation appears to be promising, but the evidence from only 1 small study may not be robust enough to trigger an update at this time.

New evidence is unlikely to change guideline recommendations.

61–04 Does fibre improve IBS or related symptoms?

Recommendations derived from this question

1.2.1.5 Healthcare professionals should review the fibre intake of people with IBS, adjusting (usually reducing) it while monitoring the effect on symptoms. People with IBS should be discouraged from eating insoluble fibre (for example, bran). If an increase in dietary fibre is advised, it should be soluble fibre such as ispaghula powder or foods high in soluble fibre (for example, oats). [2008]

Surveillance decision

This review question should not be updated.

Fibre supplementation

3-year surveillance summary

A systematic review and meta-analysis[26] assessed fibre, antispasmodics, and peppermint oil in people with IBS. In 12 studies (n=591), fibre, particularly ispaghula, was associated with lower risk of persistent symptoms compared with placebo.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A systematic review and meta-analysis[27] assessed 22 studies (number of participants not reported in the abstract) of soluble and insoluble fibre supplementation in people with IBS. Soluble fibre was associated with improvements in symptoms and abdominal pain, but insoluble fibre was not.

A systematic review and meta-analysis[28] of 14 RCTs (n=906) assessed fibre supplementation compared with placebo or usual care in people with IBS. Symptoms were improved with soluble fibre but not with insoluble fibre (bran).

An RCT[29] (n=40) assessed modified arabinoxylan rice bran in people with IBS. Modified arabinoxylan rice bran was significantly more effective in reducing symptoms than placebo.

Topic expert feedback

Topic expert feedback suggested that an update was needed to recommendations on dietary fibre. The Scientific Advisory Committee on Nutrition's new definition of dietary fibre in Carbohydrates and health includes non-digestible oligosaccharides, which are one of the components of FODMAPs.

Impact statement

Although understanding of dietary fibre has evolved since the guideline was developed, the new evidence assessed soluble and insoluble fibre, and generally supports current recommendations.

New evidence is unlikely to change guideline recommendations.

61–05 Does aloe vera have a role in managing symptoms?

Recommendations derived from this question

1.2.1.7 Healthcare professionals should discourage the use of aloe vera in the treatment of IBS. [2008]

Surveillance decision

This review question should not be updated.

Aloe vera supplements

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A 4-week RCT[30] (n=68) assessed an aloe vera product compared with placebo in people with IBS. There were no significant differences between groups in response or having adequate relief from symptoms. However, the size of the difference between groups led the authors to conclude that their study may have been underpowered.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

New evidence, finding no beneficial effect of aloe vera in IBS, is consistent with the current recommendation to discourage aloe vera use in people with IBS.

New evidence is unlikely to change guideline recommendations.

61–06 Do probiotics and prebiotics improve IBS or related symptoms?

Recommendations derived from this question

1.2.1.6 People with IBS who choose to try probiotics should be advised to take the product for at least 4 weeks while monitoring the effect. Probiotics should be taken at the dose recommended by the manufacturer. [2008]

Surveillance decision

This review question should not be updated.

Probiotic products

3-year surveillance summary

A meta-analysis[31] of 20 trials (n=1,404) assessed probiotics compared with placebo in people with IBS. Probiotics were associated with significant improvements in global IBS symptoms and less abdominal pain compared with control.

A systematic review[32] of 19 RCTs (n=1,650) assessed probiotics compared with placebo or no treatment in people with IBS. Probiotics were associated with significantly lower chance of IBS not improving, and significantly greater improvements in IBS score.

A systematic review[33] of 16 studies of probiotics in IBS noted that 11 showed 'suboptimal study design'. In 2 'appropriately designed' studies *Bifidobacterium infantis* 35624 showed significant improvement in a composite score of IBS symptoms compared with placebo.

A systematic review and meta-analysis[34] assessed 14 RCTs (number of participants not reported in the abstract). Probiotics were associated with a modest improvement in overall symptoms compared with placebo.

A meta-analysis[35] assessed 8 controlled trials of probiotics (number of participants not reported in the abstract). Probiotics were associated with significantly greater chance of clinical improvement.

An 8-week RCT[36] (n=298) assessed an *Escherichia coli* product compared with placebo in people with IBS. The responder rate (complete absence of symptoms) was significantly higher in the *E coli* group. Abdominal pain score also significantly improved in the *E coli* group.

A 6-week RCT[37] (n=274) assessed a probiotic (*Bifidobacterium animalis* DN-173 010 and yoghurt strains) compared with heat-treated yoghurt control. The probiotic was associated with lower discomfort scores and bloating. Bowel movements increased in people who had less than 3 bowel movements per week.

A 4-week RCT[38] (n=100) assessed a probiotic combination compared with placebo in people with IBS. The probiotic combination was not associated with significant relief of IBS symptoms, although abdominal pain was significantly lower in the probiotic group.

An 8 week RCT[39] (n=74) assessed a probiotic (*Lactobacillus paracasei* F19*, Lactobacillus acidophilus* La5 and *Bifidobacterium lactis* Bb12) compared with placebo. No significant difference was seen between the groups in proportion of responders.

An 8-week RCT[40] (n=70) assessed a probiotic (20 billion lyophilised bacteria) compared with placebo in people with IBS. Pain was significantly lower in the probiotic group compared with placebo.

An 8-week RCT[41] (n=61) assessed a probiotic (*Bacillus coagulans* GBI-30, 6086) compared with placebo in people with diarrhoea-predominant IBS. The average number of bowel movements was significantly lower in the probiotic group.

A 4-week RCT[42] (n=40) assessed a probiotic (*L acidophilus*-SDC 2012, 2013) compared with placebo in people with IBS. The probiotic was associated with lower abdominal pain or discomfort compared with placebo.

A 4-week RCT[43] (n=34) assessed *B lactis* DN-173 010 compared with control in people with constipation-predominant IBS. A significant reduction in maximum distension was seen with probiotics compared with control, but mean distension was not significantly different. Oro-caecal and colonic transit times were significantly shorter and overall symptom severity was significantly reduced with the probiotic.

A crossover RCT[44] (n=16) assessed a probiotic (*Lactobacillus plantarum* MF1298) compared with placebo. The probiotic was associated with less 'satisfactory relief' than placebo and higher IBS sum score, which the authors noted was an unfavourable effect of the probiotic.

6-year surveillance summary

A meta-analysis[45] of 10 studies (number of participants not reported in the abstract) assessed probiotics compared with placebo in people with IBS. Probiotics containing *Bifidobacterium breve*, *Bifidobacterium longum* or *L acidophilus* improved pain scores. Distension scores were improved with *B breve*, *B infantis*, *Lactobacillus casei*, or *L plantarum*, and all species were associated with improved flatulence.

A meta-analysis[46] of 11 RCTs (n=1,065) of probiotics plus conventional treatment (trimebutine and pinaverium) compared with conventional treatment alone. Probiotics were associated with significant relief of abdominal pain and diarrhoea, but not abdominal distension. Trimebutine and pinaverium are not available in the UK.

8-year surveillance summary

A systematic review and meta-analysis[47] of 43 studies (number of participants not reported in the abstract) assessed prebiotics, probiotics and synbiotics in people with IBS. Probiotics reduced the risk of IBS symptoms persisting. The authors noted that data for prebiotics and synbiotics were 'sparse'.

A meta-analysis[48] of 21 RCTs (number of participants not reported in the abstract) assessed probiotics compared with placebo in people with IBS. Probiotics were associated with greater improvements in symptom esponse and quality of life compared with placebo.

A systematic review of 24 studies[49] included 15 studies (n=1,793) in meta-analysis of probiotics compared with placebo in people with IBS. Probiotics were associated with improvements in abdominal pain, greater response rate, and greater likelihood of symptoms improving compared with placebo.

A meta-analysis[50] of 6 RCTs (number of participants not reported in the abstract) assessed lactobacillus-based probiotics compared with placebo in people with IBS. Lactobacillus-based probiotics were associated with significantly greater chance of clinical improvement compared with placebo.

A 12-week RCT[51] (n=379) assessed a probiotic (*Saccharomyces cerevisiae* CNCM I-3856) compared with placebo in people with IBS. The probiotic had no significant effects on symptoms or response rates.

A 4-week RCT[52] (n=285) assessed a probiotic plus mosapride (at 4 difference doses) compared with placebo in people with IBS (not diarrhoea-predominant). All treatment groups showed significantly greater effect on global IBS symptoms compared with placebo. Mosapride is not available in the UK.

A 12-week RCT[53] (n=186) assessed a multi-strain probiotic compared with placebo in people with IBS. The probiotic was associated with significantly greater reductions in symptom severity score compared with placebo but no differences in quality of life were seen.

A 4-week RCT[54] (n=179) assessed a probiotic dairy product compared with non-probiotic control in people with constipation predominant or mixed IBS. There was no significant difference in proportion of people reporting adequate relief.

An 8-week RCT[55] (n=179) assessed a probiotic (*S cerevisiae*) compared with placebo in people with IBS. A significantly higher rate of responders was seen in the probiotic group compared with placebo.

A 2-week RCT[56] (n=132) assessed a probiotic product with 7 bacterial strains including lactobacillus, bifidobacterium and streptococcus compared with placebo in people with IBS. There was no significant difference between groups in abdominal pain or distension, or quality of life.

A 6-month RCT[57] assessed a probiotic (*Lactobacillus paracasei* F19, *L acidophilus* La5 and *Bifidobacterium* Bb12) compared with placebo in people with IBS. No significant differences in symptoms were seen between the groups.

A 6-week RCT[13] (n=123) assessed a low FODMAP diet compared with the probiotic *Lactobacillus rhamnosus* GG or with normal diet in people with IBS. The probiotic diet was not associated with significant reductions in symptom severity score compared with normal diet. There was no significant difference in quality of life.

A 4-week RCT[58] (n=108) assessed a multi-strain probiotic compared with placebo in people with IBS. The probiotic was associated with significantly greater 'satisfactory relief' and lower abdominal bloating and pain.

A 6-week RCT[59] (n=84) assessed a combination probiotic product compared with placebo in people with IBS. The probiotic was associated with significantly greater improvements in quality of life compared with placebo.

A 4-week RCT[60] (n=81) assessed a probiotic (*L acidophilus*, *L rhamnosus*, *B breve*, *B actis*, *B longum*, and *Streptococcus thermophilus*) compared with placebo in people with IBS. The proportion of people with adequate symptom relief was not significantly different between groups.

A 6-week RCT[61] (n=68) assessed a probiotic (*E coli* Nissle 1917) compared with placebo in people with 'refractory' IBS. Overall, no significant differences in symptoms were seen.

A 4-week RCT[62] (n=49) assessed a multistrain probiotic containing *B longum*, *B bifidum*, *B lactis*, *L acidophilus*, *L rhamnosus*, and *S thermophilus* compared with placebo in people with IBS. Probiotics were associated with a significantly greater proportion of people with substantial relief of symptoms compared with placebo.

An 8-week RCT[63] (n=39) assessed a probiotic (*L casei* Shirota) compared with placebo in people with IBS. At the end of the intervention, the primary outcome of at least 30% reduction in composite mean symptom score was not met. After follow-up the primary outcome measure was achieved in the probiotic group,

but did not differ significantly from the placebo group.

A 3-month RCT[64] (n=36) assessed a probiotic (*B coagulans* MTCC 5856) compared with placebo in people with diarrhoea-predominant IBS. The probiotic was associated with reductions in individual symptoms and in symptom severity and increased quality of life compared with placebo.

An 8-week RCT[65] (number of participants not reported in the abstract) assessed a probiotic containing *L plantarum* 299 compared with placebo in people with IBS. No significant differences in abdominal pain relief or quality of life were seen between groups.

Topic expert feedback

Topic expert feedback suggested that, although there are many studies of probiotics, more research is necessary.

Impact statement

Evidence on probiotics is generally inconsistent, with many studies showing benefit and many others showing no benefit in people with IBS. The current recommendation recognises that probiotics are widely available and that people with IBS may wish to try them.

The studies of probiotics investigated many different strains of bacteria in many combinations. It is unclear which bacteria, or what doses, would be most effective. Therefore recommendations for specific probiotic products are unlikely to be made based on current evidence.

New evidence is unlikely to change guideline recommendations.

Prebiotics and synbiotics

3-year surveillance summary

A 12-week crossover RCT[66] (n=44) assessed a prebiotic compared with placebo in people with IBS. The prebiotic was associated with enhanced faecal bifidobacteria, changed stool consistency, flatulence, bloating, and composite score of symptoms.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A 12-week RCT[67] (n=85) assessed a synbiotic (prebiotic plus probiotic) containing *B coagulans* compared with placebo in people with IBS. The synbiotic was associated with greater reductions in abdominal pain frequency and reduced diarrhoea frequency. There was no significant effect on frequency of constipation.

A 4-week RCT[68] (n=64) assessed a synbiotic product compared with placebo in people with IBS. The synbiotic product was associated with reduced flatulence, but response rates were not significantly different from placebo. An extension study[69] included 26 people (13 people from the synbiotic group and 13 from the placebo group), all of whom received the synbiotic product for 6 months. No significant effects on response were seen. Flatulence was reduced in the participants who were in the original placebo group.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Although a few small studies of prebiotics or synbiotics were identified, suggesting possible benefits, it is not clear which strategy would be optimum (prebiotic alone or combined with a probiotic).

It is also unclear what components of prebiotics, or what doses, would be most effective. Therefore recommendations for specific prebiotic or synbiotic products are unlikely to be made based on current evidence.

New evidence is unlikely to change guideline recommendations.

61–07 What associations are there between physical activity and IBS?

Subquestion

Does physical activity improve IBS or related symptoms?

Recommendations derived from this question

People with IBS should be given information that explains the importance of self-help in effectively managing their IBS. This should include information on general lifestyle, physical activity, diet and symptom-targeted medication. [2008]

1.2.1.2 Healthcare professionals should encourage people with IBS to identify and make the most of their available leisure time and to create relaxation time. [2008]

1.2.1.3 Healthcare professionals should assess the physical activity levels of people with IBS, ideally using the General Practice Physical Activity Questionnaire (GPPAQ; see appendix J of the full guideline). People with low activity levels should be given brief advice and counselling to encourage them to increase their activity levels. [2008]

Surveillance decision

This review question should not be updated.

Physical activity interventions

3-year surveillance summary

A 12-week RCT[70] (number of participants not reported in the abstract) assessed an exercise consultation intervention compared with usual care. People in the intervention group participated in significantly more exercise and reported significantly improved symptoms of constipation compared with the control group.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A 12-week RCT[71] (n=97) assessed yoga plus conventional treatment compared with yoga plus limited conventional treatment and with waiting list control in people with IBS. Symptom severity score and quality of life showed significantly greater improvement in both treatment groups compared with the wait list control. In a follow-up study,[72] both intervention groups continued yoga for a further 12 weeks, and the waiting list group switched to the yoga intervention. Additional significant improvement in symptoms was seen. It was not clear from the abstract what interventions were included in the definition of conventional treatment.

An RCT[73] (n=51) assessed yoga (6-week twice weekly programme) compared with usual care waiting list control in adolescents and young adults with IBS. The young adults (aged 18–26 years) in the yoga group showed significantly improved IBS symptoms, global improvement, disability, psychological distress, sleep quality, and fatigue. At 2-month follow-up, only global improvement, worst pain, and nausea showed significant effects of yoga.

A follow-up study[74] (n=39) of an RCT assessed a physical activity intervention in people with IBS for a median of 5.2 years. Duration of reported physical activity increased significantly from baseline, and IBS symptoms improved.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

The new evidence suggests that physical activity, including yoga, may have beneficial effects on symptoms of IBS. Current recommendations suggest providing advice on increasing physical activity, but do not recommend specific activities.

New evidence is unlikely to change guideline recommendations.

61–08 Are antispasmodics effective in managing IBS symptoms?

Subquestion

What is the cost effectiveness of pharmacological interventions as long-term maintenance therapy for IBS?

Preamble to the recommendations in this section of the guideline

Decisions about pharmacological management should be based on the nature and severity of symptoms. The recommendations made below assume that the choice of single or combination medication is determined by the predominant symptom(s).

Recommendations derived from this question

1.2.2.1 Healthcare professionals should consider prescribing antispasmodic agents for people with IBS. These should be taken as required, alongside dietary and lifestyle advice. [2008]

Surveillance decision

This review question should not be updated.

Peppermint

3-year surveillance summary

An RCT[75] (n=90) assessed modified-release peppermint oil capsules three times daily compared with placebo in people with IBS. A significantly larger number of people in the peppermint oil group compared with placebo were free from abdominal pain or discomfort.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A systematic review and meta-analysis[76] of 9 studies (n=726) assessed peppermint oil capsules in people with IBS. Peppermint oil was associated with improvements in symptoms and in abdominal pain.

An RCT[77] (n=74) assessed peppermint oil compared with placebo in people with diarrhoea-predominant IBS. Abdominal pain was significantly reduced with peppermint oil compared with placebo, but no other outcomes showed significant differences.

An RCT[78] (n=72) assessed a modified release capsule of peppermint oil compared with placebo in people with mixed or diarrhoea-predominant IBS. Total symptom score improved significantly more with peppermint oil than with placebo.

An RCT[79] (n=60) assessed 'supermint' (an oral peppermint product not available in the UK) compared with dimeticone (an antifoaming agent included in several antacid preparations as its activated form simeticone) in people with IBS. At 4 weeks, supermint was associated with greater reductions in flatulence than dimeticone.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

In developing the guideline, peppermint oil was considered to be an antispasmodic. The new evidence, which generally suggests that peppermint oil improves IBS symptoms, is consistent with the recommendation to consider antispasmodics in people with IBS.

New evidence is unlikely to change guideline recommendations.

Other antispasmodics

3-year surveillance summary

A systematic review and meta-analysis[26] assessed fibre, antispasmodics, and peppermint oil in people with IBS. In 22 studies (n=1,778) of antispasmodics, otilonium, hyoscine and peppermint oil were associated with lower risk of persistent symptoms compared with placebo. Otilonium is not available in the UK.

A systematic review[80] of 8 RCTs (n=555) of mebeverine compared with placebo in people with IBS. Mebeverine was not associated with significantly better relief of abdominal pain.

An RCT[81] (n=118) assessed oral hyoscine compared with hyoscine suppository, oral drotaverine, calcium gluconate, or herbal suppository (calendula) in people with IBS. Both methods of administering hyoscine were associated with significant reductions in pain scores in people with diarrhoea-predominant IBS. No significant differences were seen in other IBS subtypes or with drotaverine. Drotaverine is not available on prescription in the UK.

An RCT[82] (n=412) assessed alverine citrate 60 mg plus simeticone 300 mg compared with placebo. Alverine citrate plus simeticone was associated with lower pain scores and higher rate of responders than placebo.

A 12-week RCT[83] (n=140) assessed dextofisopam 200 mg twice daily compared with placebo in people with diarrhoea-predominant or alternating IBS. Dextofispam significantly increased the number of months of adequate overall relief of IBS symptoms compared with placebo. Abdominal pain and headache were reported more frequently in the dextofispam group. Dextofispam is not available in the UK, and a licensing application is not expected.

6-year surveillance summary

A Cochrane review[84] assessed 56 studies (n=3,725) of bulking agents, antispasmodics and antidepressants in people with IBS. Antispasmodics significantly improved abdominal pain, global assessment and symptom score. Specific antispasmodics associated with significant benefits were cimteropium and dicyclomine, peppermint oil, pinaverium, and trimebutine. Cimteropium pinaverium and trimebutine are not available in the UK.

A systematic review and meta-analysis[85] of 23 studies assessed antispasmodics in people with IBS. Overall, antispasmodics were associated with significant global improvement and reduced pain. Otilonium and alverine plus simeticone were associated with significant global improvement and pinaverium plus simeticone was associated with significantly less bloating.

8-year surveillance summary

An RCT[86] (n=436) assessed on-demand alverine citrate plus simeticone compared with physician's choice of usual care in people with IBS. The treatment chosen by physicians was usually antispasmodics. Symptom severity score and quality of life both improved significantly more with alverine citrate plus simeticone compared with usual care.

A 4-week RCT[87] (n=287) assessed tiropramide 100 mg compared with otilonium 20 mg three times daily in people with IBD. No significant differences in abdominal pain were seen between groups. Tiropramide and otilonium are not available in the UK.

An RCT[88] (n=180) assessed drotaverine hydrochloride compared with placebo in people with IBS. Drotaverine was associated with significantly greater reductions in pain frequency and pain severity, and with improvements in stool frequency compared with placebo.

A 4-week RCT[89] (n=93) assessed otilonium bromide 20 mg, 40 mg, or 80 mg three times daily compared with placebo in people with IBS. Otilonium 40 mg and 80 mg doses were associated with significant improvement in global discomfort compared with placebo. There was a significant dose-dependent reduction in diarrhoea.

An RCT[90] assessed pinaverium compared with placebo in people with IBS. A significantly higher proportion of people met a primary endpoint (reduction in pain or change in Bristol Stool score) with pinaverium compared with placebo. Significantly more people in the pinaverium group thought their symptoms had improved compared with placebo.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

New evidence supports the use of antispasmodics as a treatment option for

people with IBS, in line with current recommendations.

New evidence is unlikely to change guideline recommendations.

61–09 Are laxatives effective in the management of IBS?

Subquestion

Is linaclotide effective in the treatment of constipation predominant Irritable Bowel Syndrome (IBS-C)?

Is lubiprostone effective in the treatment of IBS-C?

What is the cost effectiveness of pharmacological interventions as long-term maintenance therapy for IBS?

Recommendations derived from this question

1.2.2.2 Laxatives should be considered for the treatment of constipation in people with IBS, but people should be discouraged from taking lactulose. [2008]

1.2.2.3 Consider linaclotide for people with IBS only if:

- optimal or maximum tolerated doses of previous laxatives from different classes have not helped and they have had constipation for at least 12 months.

  Follow up people taking linaclotide after 3 months. [new 2015]

1.2.2.4 People with IBS should be advised how to adjust their doses of laxative or antimotility agent according to the clinical response. The dose should be titrated according to stool consistency, with the aim of achieving a soft, well-formed stool (corresponding to Bristol Stool Form Scale type 4). [2008]

Surveillance decision

This review question should not be updated.

Laxative treatments

3-year surveillance summary

A Cochrane review[84] assessed 56 studies (n=3,725) of bulking agents, antispasmodics and antidepressants in people with IBS. Bulking agents did not result in significant improvements in abdominal pain, global assessment or symptom score compared with placebo.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

An RCT[91] (n=139) assessed macrogol (polyethylene glycol 3350 plus electrolytes) compared with placebo in people with constipation-predominant IBS. Macrogol was associated with significantly higher mean spontaneous bowel movements compared with placebo. There was no significant difference between groups for abdominal discomfort or pain.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Traditional bulking laxatives may not improve symptoms of IBS, and drug development in this area has not resulted in many new products in the UK market. Macgrogol may help with bowel function but not with abdominal pain or discomfort.

This review question was updated in 2015. This surveillance review found no new evidence for linaclotide or lubiprostone published after the addendum searches were conducted.

Therefore the recommendations, to consider laxatives for relief of constipation and to consider linaclotide only after optimising treatment with different classes of laxatives, remain valid.

New evidence is unlikely to change guideline recommendations.

61–10 Are anti-motility agents effective in symptom control in IBS?

Subquestion

What is the cost effectiveness of pharmacological interventions as long-term maintenance therapy for IBS?

Recommendations derived from this question

1.2.2.4 Loperamide should be the first choice of antimotility agent for diarrhoea in people with IBS. [2008]

1.2.2.5 People with IBS should be advised how to adjust their doses of laxative or antimotility agent according to the clinical response. The dose should be titrated according to stool consistency, with the aim of achieving a soft, well-formed stool (corresponding to Bristol Stool Form Scale type 4). [2008]

Surveillance decision

No new information was identified at any surveillance review.

This review question should not be updated.

61–11 Are low-dose tricyclic antidepressants (TCAs), monoamine oxidase inhibitors (MAOIs), selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs) effective in the management of IBS (including which are more effective)?

Subquestion

Do tricyclics and SSRI's have a role in the management of IBS symptoms?

What is the cost effectiveness of pharmacological interventions as long-term maintenance therapy for IBS?

Recommendations derived from this question

1.2.2.6 Consider tricyclic antidepressants (TCAs) as second-line treatment for people with IBS if laxatives, loperamide or antispasmodics have not helped. Start treatment at a low dose (5–10 mg equivalent of amitriptyline), taken once at night, and review regularly. Increase the dose if needed, but not usually beyond 30 mg.† [2015]

1.2.2.7 Consider selective serotonin reuptake inhibitors (SSRIs) for people with IBS only if TCAs are ineffective.† [2015]

1.2.2.8 Take into account the possible side effects when offering TCAs or SSRIs to people with IBS. Follow up people taking either of these drugs for the first time at low doses for the treatment of pain or discomfort in IBS after 4 weeks and then every 6–12 months.[†] [2015]

[†] At the time of publication (February 2015), TCAs and SSRIs did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's Good practice in prescribing and managing medicines and devices for further information.

Surveillance decision

This review question should not be updated.

Antidepressants

3-year surveillance summary

This review question was updated in 2015. Evidence identified in 3-year surveillance was available for consideration in the update.

6-year surveillance summary

This review question was updated in 2015. Evidence identified in 6-year surveillance was available for consideration in the update.

8-year surveillance summary

A systematic review and meta-analysis[92] assessed 48 studies of antidepressants or psychological therapy in people with IBS. Antidepressants were more likely to be associated with improvements in symptoms compared with control.

A meta-analysis[93] of 12 RCTs (number of participants not reported in the abstract) assessed antidepressants in people with IBS. Overall, antidepressants were associated with significant improvement in global symptoms. In analysis by class, TCAs significantly improved global symptoms but SSRIs did not.

An 8-week RCT[94] (n=200) assessed tandospirone (an antidepressant) plus pinaverium (an antispasmodic) compared with placebo plus pinaverium in people with IBS and anxiety. Abdominal pain and diarrhoea, and anxiety were significantly improved with tandospirone plus pinaverium compared with placebo plus pinaverium. Tandospirone and pinaverium are not available in the UK.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Current evidence, finding that TCAs may be effective in IBS but that SSRIs may not be effective, is consistent with the recommendation to consider TCAs as second-line treatment for IBS, and that SSRIs should be considered only if TCAs are ineffective.

New evidence is unlikely to change guideline recommendations.

61–12 Does CBT have a role in managing symptoms?

Subquestion

What is the cost effectiveness of CBT, psychotherapy and hypnotherapy as ‘one-off’ interventions for IBS?

Recommendations derived from this question

1.2.3.1 Referral for psychological interventions (cognitive behavioural therapy [CBT], hypnotherapy and/or psychological therapy) should be considered for people with IBS who do not respond to pharmacological treatments after 12 months and who develop a continuing symptom profile (described as refractory IBS). [2008]

Surveillance decision

This review question should not be updated.

CBT

3-year surveillance summary

A 7-week RCT[95] (n=64) assessed CBT-based self-management plus usual care compared with usual care alone in people with IBS. The intervention consisted of a 1-hour therapy session, 2 telephone sessions of 1-hour, and 7-weeks of self-management with a manual. Significantly more people in the self-management group reported symptom relief than in the usual care group, and effects remained at 8-month follow-up.

A 9-week RCT[96] (n=188) assessed self-management intervention delivered mainly by telephone compared with delivery entirely in person, and with usual care. In the telephone group, 3 sessions were delivered in person and 6 were delivered by telephone; in the other intervention group, all 9 sessions were delivered in person. Gastrointestinal symptoms and quality of life showed significantly greater improvement in both self-management groups compared with usual care.

A cost-effectiveness analysis[97] assessed CBT plus mebeverine compared with mebeverine alone in people with IBS. CBT cost £308 but there was no significant impact of CBT on use of other services or on 'lost employment'. The cost per clinically important reduction in symptoms was £220 at the end of treatment, and £3,080 after a year.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A systematic review and meta-analysis[92] assessed 48 studies of antidepressants or psychological therapy in people with IBS. Psychological therapies were more likely to be associated with improvements in symptoms compared with control.

A systematic review and meta-analysis[98] of 15 RCTs (number of participants not reported in the abstract) assessed psychological therapies (mostly CBT) in people with IBS. Psychological therapies were associated with significant improvements in symptom severity, quality of life, and abdominal pain, but no significant effects were seen for diarrhoea or constipation.

A systematic review and meta-analysis[99] of 10 RCTs (n=886) assessed guided self-help interventions in people with irritable bowel syndrome. Guided self-help was not associated with significant effects on IBS symptom severity or quality of life.

Further analyses[100,101] of an RCT included in 3-year surveillance,[96] were identified. At 3 months, cortisol levels were significantly higher in people in the self-management group compared with usual care. However, self-reported daily stress levels were significantly lower in the self-management group. Self-reported anxiety and depression were also lower in the self-management group.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Evidence for CBT and self-management therapies in people with IBS is inconsistent, and it is not clear from the abstract review whether the populations studied had IBS that had not responded to other treatments. Therefore, the current recommendation to consider CBT in people whose IBS had not responded to other treatments remains valid.

New evidence is unlikely to change guideline recommendations.

61–13 Do psychotherapies (computerised cognitive behavioural therapy and mindfulness therapy) have an effect on the symptoms of IBS?

Subquestion

Does psychotherapy have a role in managing symptoms?

What is the cost effectiveness of CBT, psychotherapy and hypnotherapy as 'one-off' interventions for IBS?

Recommendations derived from this question

No recommendations were made for this review question.

Surveillance decision

This review question should not be updated.

Computerised CBT

3-year surveillance summary

This review question was updated in 2015. Evidence identified in 6-year surveillance was available for consideration in the update.

6-year surveillance summary

This review question was updated in 2015. Evidence identified in 6-year surveillance was available for consideration in the update.

8-year surveillance summary

A 6-week RCT[102] (n=135) assessed a web-based cognitive behavioural therapy (Regul8) intervention alone, with nurse led telephone session and email support or no website in combination with mebeverine, methylcellulose or placebo in people with IBS. After 6 weeks, the group assigned to no website had significantly lower symptom severity scores compared with the website groups. However at 12-week follow-up there were no significant differences between groups.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

The new evidence suggests that patients had worse symptoms after internet-based CBT than after usual care. The addendum update in 2015 was unable to make recommendations on computerised CBT, and the new evidence is unlikely to change this stance.

New evidence is unlikely to change guideline recommendations.

61–14 Does hypnotherapy have a role in managing IBS symptoms?

Subquestion

What is the cost effectiveness of CBT, psychotherapy and hypnotherapy as 'one-off' interventions for IBS?

Recommendations derived from this question

1.2.3.1 Referral for psychological interventions (cognitive behavioural therapy [CBT], hypnotherapy and/or psychological therapy) should be considered for people with IBS who do not respond

to pharmacological treatments after 12 months and who develop a continuing symptom profile (described as refractory IBS). [2008]

Surveillance decision

This review question should not be updated.

Hypnotherapy

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A systematic review and meta-analysis[103] of 8 RCTs (n=464) assessed hypnotherapy in people with IBS. At the end of treatment, hypnotherapy was associated with significant improvements in symptoms and global gastrointestinal score compared with control. At long-term follow up, the effect on symptoms remained significant but the effect on global gastrointestinal score did not differ significantly from control.

A systematic review and meta-analysis[104] of 7 RCTs (n=374) assessed hypnotherapy compared with usual care or no intervention in people with IBS. Abdominal pain was significantly lower at 3 months with hypnotherapy compared with control.

An RCT[105] (n=97) assessed hypnotherapy compared with biofeedback in women with refractory IBS. Biofeedback was associated with significantly greater reduction in IBS symptom severity.

A 6-week RCT[16] (n=74) assessed hypnotherapy compared with a low FODMAP diet and with both interventions. Improvements in overall symptoms were not significantly different between groups.

An RCT[106] (n=60) assessed hypnotherapy plus usual care compared with usual care alone. Quality of life was significantly improved in the hypnotherapy group compared with usual care.

Topic expert feedback

Topic experts highlighted an audit of the use of hypnotherapy in IBS. However, observational studies were not eligible for consideration for this review question.

Impact statement

Several studies suggest that hypnotherapy may be effective in IBS, although it may not be better than other available treatments. This finding supports the current recommendation to consider psychological therapies such as hypnotherapy if other treatments are ineffective.

New evidence is unlikely to change guideline recommendations.

61–15 Does biofeedback have a role in managing symptoms?

Recommendations derived from this question

No recommendations were made for this review question.

Surveillance decision

This review question should not be updated.

Biofeedback

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

An RCT[105] (n=97) assessed hypnotherapy compared with biofeedback in women with refractory IBS. Biofeedback was associated with significantly greater reduction in IBS symptom severity. However the abstract noted large levels of drop-out, but not whether there was a difference in dropouts between groups, with only 61 people remaining at 12-week follow-up.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

The evidence-base for biofeedback evaluated in developing the guideline was limited to 2 small studies. Considering the drop-out rate, the new evidence does not substantially change the evidence base. Furthermore, the absence of an inactive control group in the new evidence prohibits direct comparisons with other studies of biofeedback.

Therefore, although biofeedback was associated with greater effect on symptoms than hypnotherapy, it is unlikely that this study alone could lead to updated recommendations.

New evidence is unlikely to change guideline recommendations.

61–16 Is acupuncture an effective intervention in managing IBS symptoms?

Recommendations derived from this question

1.2.4.1 The use of acupuncture should not be encouraged for the treatment of IBS. [2008]

Surveillance decision

This review question should not be updated.

Acupuncture

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

A Cochrane review[107] and a systematic review[108] both identified 17 studies (n=1,806) of acupuncture in people with IBS. Both reports found that in trials with sham acupuncture control there was no significant effect of acupuncture on IBS symptoms. However in trials without control, acupuncture was associated with significantly greater symptom improvement than drug treatment. The Cochrane review additionally noted that the GRADE quality of the evidence for studies using sham control was moderate due to sparse data. Studies without control were noted to be low quality due to an absence of blinding and sparse data.

8-year surveillance summary

A systematic review and meta-analysis[109] of 6 RCTs compared acupuncture with placebo in people with IBS. Acupuncture was associated with significantly greater risk of 'clinical improvement' compared with placebo. However, it was not clear from the abstract whether placebo control meant sham acupuncture and how 'clinical improvement' was defined.

An RCT[110] (n=60) assessed 'catgut embedding' acupuncture compared with sham acupuncture and with meberivine in people with IBS. Catgut-embedding acupuncture was associated with significant improvement in pain and depression.

An RCT[111] (n=233) assessed acupuncture plus usual care compared with usual care in people with diarrhoea predominant IBS or functional

diarrhoea. At 24 months no significant differences were seen between the acupuncture and usual care groups.

An RCT[112] (n=448) assessed acupuncture compared with loperamide 2 mg three times daily in people with IBS. Comparison of 3 types of acupuncture (He, Shu-Mu, and He-Shu-Mu) was done. No significant differences were seen in stool frequency between groups.

A 4-week RCT[113] (n=60) assessed warm needling compared with loperamide 2 mg three times daily in people with diarrhoea-predominant IBS. The 'total effective rate' was significantly higher and the recurrence rate was significantly lower in the warm needling group compared with the loperamide group.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Evidence shows no robust evidence from blinded trials with sham acupuncture control to support the use of acupuncture in IBS. This finding supports the recommendation that acupuncture should not be encouraged for treating IBS.

New evidence is unlikely to change guideline recommendations.

Moxibustion

3-year surveillance summary

An RCT[114] assessed pecking moxibustion (burning of mugwort on, or near, the skin at acupuncture points) compared with acupuncture in people with IBS. Pecking moxibustion was associated with significantly greater reductions in symptoms than acupuncture.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A systematic review and meta-analysis[115] of 20 RCTs (n=1,625) assessed moxibustion compared with sham moxibustion, drug treatment, or other active treatments in people with IBS. Moxibustion alone or combined with acupuncture was associated with significantly greater relief of IBS symptoms compared with drug treatments. Moxibustion was not more effective for reducing symptom severity than sham moxibustion. Moxibustion was also not more effective than drug treatment plus herbal medicine.

A systematic review and meta-analysis[116] of 7 RCTs (n=568) assessed moxibustion compared with drug treatment in people with diarrhoea-predominant IBS. Moxibustion was associated with significantly greater improvement in symptoms compared with drug treatment.

An RCT[117] (n=166) assessed 4 different frequencies and doses of moxibustion in people with diarrhoea-predominant IBS. Symptom scores were significantly lower in the groups having 3 treatments per week compared with a group having 6 treatments per week.

An RCT[118] (n=60) assessed electroacupuncture compared with moxibustion in people with diarrhoea-predominant IBS. Moxibustion was associated with greater improvements in 'defaecation emergency', anxiety, and depression than electroacupuncture.

An RCT[119] (n=82) assessed ectroacupuncture compared with moxibustion in people with IBS. Electroacupuncture was associated with greater improvement in constipation. Moxibustion was associated with greater improvement in diarrhoea.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Several studies found moxibustion to be more effective than other treatments, particularly drug treatment. However, studies generally did not use sham moxibustion control. There is therefore unlikely to be sufficient evidence to include moxibustion in an update to the guideline at this time.

New evidence is unlikely to change guideline recommendations.

61–17 Does relaxation therapy have a role in managing symptoms?

Do psychotherapies (relaxation therapy) have an effect on symptoms of IBS?

Recommendations derived from this question

No recommendations were made for this review question.

Surveillance decision

This review question should not be updated.

Relaxation

3-year surveillance summary

This review question was updated in 2015. Evidence identified in 3-year surveillance was available for consideration in the update.

6-year surveillance summary

This review question was updated in 2015. Evidence identified in 6-year surveillance was available for consideration in the update.

8-year surveillance summary

A systematic review[120] of 8 RCTs (number of participants not reported in the abstract) assessed relaxation therapy in people with IBS. Symptoms of IBS were significantly reduced with relaxation therapies. There was no significant difference in symptom severity or anxiety. However, the authors noted that the results 'should be interpreted with caution due to the small number of studies examined and the associated methodological problems'. Additionally, it was not clear from the abstract what control interventions were used the included studies.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Evidence suggests that relaxation therapies may be useful, but the evidence base has methodological limitations. In the 2015 addendum update, evidence on relaxation therapies was considered but no recommendations could be made. The evidence-base has not developed sufficiently to change this stance.

New evidence is unlikely to change guideline recommendations.

61–18 Is reflexology an effective intervention in managing IBS symptoms?

Recommendations derived from this question

1.2.4.2 The use of reflexology should not be encouraged for the treatment of IBS. [2008]

Surveillance decision

No new information was identified at any surveillance review.

This review question should not be updated.

61–19 Is herbal medicine an effective intervention in managing IBS symptoms?

Recommendations derived from this question

No recommendations were made for this review question.

Surveillance decision

This review question should not be updated.

Herbal medicines

3-year surveillance summary

A 12-week RCT[121] (n=70) assessed St John's Wort compared with placebo in people with IBS. St John's Wort was associated with lower improvement in symptoms than placebo.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A 3-week RCT[122] (n=40) assessed hot or cold caraway oil poultices compared with olive oil poultices in women with IBS. Significantly higher responder rates were seen with caraway oil poultice compared with cold olive oil poultice. However, the authors recognised that the effects may have been due to heat rather than an effect of the caraway oil.

An RCT[123] (n=121) assessed curcumin plus fennel oil compared with placebo in people with IBS. The curcumin plus fennel oil group had a significantly higher proportion of symptom-free patients compared with placebo.

A 12-week RCT[124] (n=121) assessed partially hydrolysed guar gum compared with placebo in people with IBS. Bloating was significantly lower in the guar gum group than in the placebo group, but there was no significant difference between groups in symptom severity or quality of life.

A 4-week cross-over RCT[125] (n=32) assessed a herbal preparation of curry leaf, pomegranate and turmeric compared with placebo. No significant differences in symptom intensity were seen between groups.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Generally, studies show no benefit of herbal medicines, although a preparation of curcumin plus fennel oil showed beneficial effects on IBS. In developing the guideline, topic experts thought that there were 'too many uncertainties regarding type and dose of herbal medicines to make a recommendation for practice'. It is unlikely that the single study on curcumin and fennel oil would change this stance.

New evidence is unlikely to change guideline recommendations.

Chinese medicine

3-year surveillance summary

An RCT[126] (n=120) assessed Chinese medicine (tongxie yaofang) compared with control in people with diarrhoea-predominant IBS. No significant diffrerences between groups were seen for 'total efficacy' or symptom scores.

An RCT[127] (n=40) assessed Chinese medicine (ganpi hexin decoction) compared with pinaverium in people with IBS. The Chinese herbal remedy was associated with greater reduction in symptoms than pinaverium. Pinaverium is an antispasmodic that is not available in the UK.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A meta-analysis[128] assessed 19 RCTs (n=1,510) of Chinese medicine in constipation-predominant IBS. Chinese medicine was reported to be significantly 'superior' to Western

medicine. However, publication bias was reported.

A meta-analysis[129] of 7 studies (n=954) assessed Chinese medicine (shugan jianpi zhixie) in people with diarrhoea-predominant IBS. Chinese medicine was associated with significantly greater improvements in symptom severity and abdominal pain compared with placebo.

An RCT[130] (n=240) assessed Chinese medicine (shishen wan) compared with placebo in people with diarrhoea-predominant IBS. Chinese medicine was associated with significantly greater 'total effective rate' compared with placebo.

An 8-week RCT[131] (n=125) assessed Chinese medicine compared with placebo in people with constipation-predominant IBS. Chinese medicine was associated with significantly greater proportion of people reporting adequate relief or improved bowel habits and reductions in symptom severity compared with placebo.

An 8-week RCT[132] (n=132) assessed Chinese medicine (berberine) compared with placebo in people with diarrhoea-predominant IBS. Berberine was associated with significantly greater reduction in the frequency of diarrhoea and abdominal pain and reduced urgent need for defaecation.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Several studies suggest that Chinese medicine may improve symptoms of IBS. However, in developing the guideline, topic experts thought that there were 'too many uncertainties regarding type and dose of herbal medicines to make a recommendation for practice'.

Studies identified in surveillance considered differing types and doses of Chinese medicines. The evidence is unlikely to be sufficiently consistent to consider for inclusion in the guideline.

New evidence is unlikely to change guideline recommendations.

61–20 Do psychosocial interventions have a role in managing IBS symptoms?

Recommendations derived from this question

No recommendations were made for this review question.

Surveillance decision

No new information was identified at any surveillance review.

This review question should not be updated.

61–21 Do self help/support groups have a role in managing IBS symptoms?

Recommendations derived from this question

No recommendations were made for this review question.

Surveillance decision

No new information was identified at any surveillance review.

This review question should not be updated.

61–22 What role does patient information play in IBS?

Recommendations derived from this question

1.2.5.1 Follow-up should be agreed between the healthcare professional and the person with IBS, based on the response of the person's symptoms to interventions. This should form part of the annual patient review. The emergence of any 'red flag' symptoms during management and follow-up should prompt further investigation and/or referral to secondary care. [2008]

Surveillance decision

This review question should not be updated.

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

An RCT[133] (n=40) assessed an education intervention plus usual care (mebeverine 135 mg three times daily and amitriptyline 10 mg once daily) compared with usual care alone in people with IBS. No significant difference was seen in symptom severity between groups.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

New evidence suggests that additional education does not affect IBS symptoms. Current recommendations on patient information do not include education interventions, and the new evidence identified in surveillance would be unlikely to change this stance.

New evidence is unlikely to change guideline recommendations.

NQ – 01 What other treatments are effective for treating IBS?

This question was not addressed by the guideline.

New evidence has subsequently been identified and considered for possible addition to the guideline as a new question.

Surveillance decision

This question should not be added.

Serotonin 5-HT$_3$ and 5-HT$_4$ receptor antagonists

3-year surveillance summary

A systematic review and meta-analysis[134] of 29 RCTs (number of participants not reported in the abstract) assessed 5-HT$_3$ antagonists and 5-HT$_4$ agonists compared with placebo in people with IBS. The 5-HT$_3$ antagonists alosetron and cilansetron and the 5-HT$_4$ agonist tegaserod were associated with significantly lower risk of symptoms persisting compared with placebo. Alosetron, cilansetron, and tegaserod are not available in the UK, and licensing applications are not expected.

A further RCT[135] (n=661) investigating tegaserod found this drug to improve symptoms in women with IBS.

A further 2 studies were identified that assessed renzapride[136,137] in IBS. However, development of this drug was subsequently discontinued.

6-year surveillance summary

A systematic review and meta-analysis[138] assessed 8 studies (n=2,841) of 5-HT_3 antagonists and 5-HT_4 agonists compared with placebo in people with IBS. Cisapride was not associated with significant improvement in global symptoms, abdominal pain, or constipation compared with placebo. Renzapride 4 mg daily was associated with significant improvement in global symptoms, but lower doses were not. Renzapride is not not available in the UK, and a licensing application is not expected. Cisapride was withdrawn from the UK market because of cardiac side effects.

8-year surveillance summary

A 12-week RCT[139] (n=296) assessed ramosetron (5 microgram once daily) compared with placebo in men with diarrhoea-predominant IBS. Ramosetron was associated with significantly improved stool consistency compared with placebo.

A 12-week RCT[140] (n=576) assessed ramosetron (2.5 microgram once daily) compared with placebo in women with diarrhoea-predominant IBS. Global improvement was significantly greater in the ramosetron group compared with placebo. The ramosetron group also had significant improvements in stool consistency, abdominal pain and discomfort, and quality of life.

A crossover RCT[141] (n=120) assessed ondansetron in people with diarrhoea-predominant IBS. Ondansetron was associated with significant improvements in stool consistency, and in frequency and urgency of defaecation compared with placebo. Pain scores did not show significant improvements compared with placebo.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Serotonin 5-HT_3 receptor antagonists appear to be beneficial in IBS. However, ramosetron is not available in the UK and ondansetron is not licensed for use in IBS in the UK.

New evidence is unlikely to impact on the guideline.

Aminosalicylates

3-year surveillance summary

No relevant evidence was identified.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

A 12-week RCT[142] (n=185) assessed mesalazine 800 mg three times daily compared with placebo in people with IBS. No significant differences in response rates were seen between groups.

An RCT[143] (n=136) assessed mesalazine compared with placebo in people with diarrhoea-predominant IBS. There were no significant differences between groups for stool frequency or consistency, abdominal pain or 'satisfactory relief'.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

The evidence suggests that mesalazine is not effective in IBS. Mesalazine is not licensed in the UK for use in IBS. This treatment should not be considered in an update to the guideline.

New evidence is unlikely to impact on the guideline.

Antibiotics

3-year surveillance summary

A systematic review and meta-analysis[144] of 2 studies (n=234) assessed antibiotics in people with IBS. Antibiotics were associated with a significant increase in 'clinical response in IBS symptoms'. However the authors noted concerns about variable methodology and presence of publication bias.

6-year surveillance summary

A systematic review and meta-analysis[145] of 5 studies (number of participants not reported in the abstract) assessed rifaximin in IBS. Rifaximin was associated with global symptom improvement and improved bloating compared with placebo.

8-year surveillance summary

A systematic review and meta-analysis[146] of 4 studies assessed rifaximin in people with IBS. Rifaximin was associated with improved overall symptoms compared with placebo. Abdominal pain, nausea, vomiting and headache did not differ significantly between groups.

An RCT[147] (n=31) assessed rifaximin compared with placebo in people with constipation-predominant IBS. All participants also received neomycin. Rifaximin was associated with significantly lower constipation severity compared with placebo.

An RCT[148] (n=80) assessed norfloxacin 800 mg daily for 10 days compared with placebo in people with IBS. Symptom score at 1 month was significantly lower in people who also had small-intestinal bacterial overgrowth. However no benefit was seen after 6 months.

A 2-week RCT[149] (number of participants not reported in the abstract) assessed rifaximin 550 mg three times daily compared with placebo in people with IBS who did not have small intestinal bacterial overgrowth. Rifaximin was not associated with significant differences in bowel symptoms, small bowel or colonic permeability, or 24-hour colonic transit. Rifaximin was associated with quicker emptying of the ascending colon and overall colonic transit.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

Studies of antibiotics show inconsistent results, with some suggesting benefit and others suggesting no benefit. Overall, rifaximin showed beneficial effects on IBS symptoms in meta-analyses. It is unlikely current evidence on antibiotics in IBS would affect the guideline.

New evidence is unlikely to impact on the guideline.

Other treatments for IBS

3-year surveillance summary

An RCT[150] (n=186) assessed octatropine 40 mg plus diazepam 2.5 mg twice daily compared with placebo in people with IBS. There were no significant differences in abdominal pain and discomfort between groups. Octatropine is not available in the UK.

6-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

An RCT[151] (n=559) assessed a developmental drug, ibodutant (1 mg, 3 mg, or 10 mg), compared with placebo in people with diarrhoea-predominant IBS. Significant effects compared with placebo were seen in women only. Idobutant is not available in the UK and a licensing application is not expected.

A Cochrane review[152] of 3 RCTs (n=213) assessed homeopathic remedies in people with IBS. Asafoetida showed significant differences in 'global improvement' from placebo in 2 studies conducted in the 1970s. Asafoetida plus nux vomica showed no differences from placebo. The authors noted that the overall quality of the evidence was low because of high or unknown risk of bias, short-term follow-up and sparse data.

An RCT[153] (n=21) assessed transcranial magnetic stimulation compared with sham stimulation in people with IBS. No significant differences were seen between the intervention and sham groups in pressure pain threshold, maximum tolerated volume and rectal compliance.

An RCT[154] (n=60) assessed Chinese spinal orthopaedic manipulation compared with pinaverium in people with IBS. The orthopaedic manipulation was associated with significantly better results (rated as excellent, good or poor).

A cross-over RCT[155] (n=25) assessed the investigational drug PPC-5650 compared with

placebo in people with IBS. PPC-5650 had no effects on pain perception during rectal stimulation compared with placebo.

A study of eluxadoline[156] was identified. However, this drug is currently being evaluated by NICE's technology appraisals programme. The appraisal of eluxadoline is expected to publish in 2017.

Topic expert feedback

No topic expert feedback was relevant to this evidence.

Impact statement

New evidence on a variety of treatments for IBS was identified, but in most cases no significant effects were seen, or studies had methodological issues. None of these treatments are likely to affect the guideline at this time.

New evidence is unlikely to impact on the guideline.

Research recommendations

Prioritised research recommendations

At 4-year and 8-year surveillance reviews of guidelines published after 2011, we assess progress made against prioritised research recommendations. We may then propose to remove research recommendations from the NICE version of the guideline and the NICE database for research recommendations. The research recommendations will remain in the full versions of the guideline. See NICE's research recommendations process and methods guide 2015 for more information.

These research recommendations were deemed priority areas for research by the Guideline Committee; therefore, at this 8-year surveillance review time point a decision **will not** be taken on whether to retain the research recommendations or stand them down, because this guideline published before 2011.

RR – 01 Are low-dose tricyclic antidepressants (TCAs), SSRIs and SNRIs effective in the treatment of IBS as a first line therapy, and which is the more effective and safe option?

- What is the clinical and cost effectiveness of low-dose TCAs and SSRIs for treating IBS in primary care?

New evidence relevant to the research recommendation was found but an update of the related review question is not planned because evidence supports current recommendations.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 02 Are psychological interventions (psychological therapy, hypnotherapy and CBT) equally effective in the management of IBS symptoms, either as first line therapies in primary care, or in the treatment of people with IBS that is refractory to other treatments?

For CBT, new evidence relevant to the research recommendation was found but an update of the related review question is not planned because the new evidence is insufficient to trigger an update.

For hypnotherapy, new evidence relevant to the research recommendation was found but an update of the related review question is not planned because evidence supports current recommendations.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 03 What factors contribute to refractory symptoms in IBS?

No new evidence relevant to the research recommendation was found and no ongoing studies were identified.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 04 What is the effect of relaxation and biofeedback therapies on IBS symptoms and patient related outcomes?

For both biofeedback and relaxation therapies, new evidence relevant to the research recommendation was found but an update of the related review question is not planned because the new evidence is insufficient to trigger an update.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 05 Are Chinese and non-Chinese herbal medicines safe and effective as first-line therapy in the treatment of IBS, and which is the more effective and safer option?

For both Chinese herbal medicines and non-Chinese herbal medicines, new evidence relevant to the research recommendation was found but an update of the related review question is not planned because the new evidence is insufficient to trigger an update.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

Other research recommendations

The following research recommendations were not deemed as priority areas for research by the guideline committee.

RR – 06 For people with IBS, what is the clinical and cost effectiveness of a low FODMAP diet?

New evidence relevant to the research recommendation was found but an update of the related review question is not planned because evidence supports current recommendations.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

RR – 07 What is the clinical and cost effectiveness of computerised CBT and mindfulness therapy for the management of IBS in adults?

For computerised CBT and mindfulness, new evidence relevant to the research recommendation was found but an update of the related review question is not planned because evidence supports current recommendations.

Surveillance decision

This research recommendation will be considered again at the next surveillance point.

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