NICE National Institute for Health and Care Excellence

NICE guideline

Irritable bowel syndrome in adults: diagnosis and management

Clinical guideline

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www.nice.org.uk/guidance/cg61

Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

This guideline replaces ESNM16.

This guideline is partially replaced by CG122.

This guideline is the basis of QS114 and QS134.

This guideline should be read in conjunction with NG193.

Overview

This guideline covers diagnosing and managing irritable bowel syndrome (IBS) in people aged 18 and over. It details how to accurately diagnose IBS, and aims to improve the quality of life for adults with IBS by promoting effective management using dietary and lifestyle advice, pharmacological therapy and referral for psychological interventions.

Who is it for?

- Healthcare professionals
- Commissioners and providers
- People with suspected or confirmed IBS and their families and carers

Introduction

Irritable bowel syndrome (IBS) is a chronic, relapsing and often life-long disorder. It is characterised by the presence of abdominal pain or discomfort, which may be associated with defaecation and/or accompanied by a change in bowel habit. Symptoms may include disordered defaecation (constipation or diarrhoea or both) and abdominal distension, usually referred to as bloating. Symptoms sometimes overlap with other gastrointestinal disorders such as non-ulcer dyspepsia or coeliac disease. People with IBS present to primary care with a wide range of symptoms, some of which they may be reluctant to disclose without sensitive questioning.

People with IBS present with varying symptom profiles, most commonly 'diarrhoea predominant', 'constipation predominant' or alternating symptom profiles. IBS most often affects people between the ages of 20 and 30 years and is twice as common in women as in men. Prevalence in the general population is estimated to be between 10% and 20%. Recent trends indicate that there is also a significant prevalence of IBS in older people. IBS diagnosis should be a consideration when an older person presents with unexplained abdominal symptoms.

Key aspects of this guideline include establishing a diagnosis; referral into secondary care only after identification of 'red flags' (symptoms and/or features that may be caused by another condition that needs investigation); providing lifestyle advice; drug and psychological interventions; and referral and follow-up. The guideline refers to NICE's guideline on suspected cancer: recognition and referral in relation to appropriate referral to secondary care.

The main aims of this guideline are to:

- provide positive diagnostic criteria for people presenting with symptoms suggestive of IBS
- provide guidance on clinical and cost-effective management of IBS in primary care
- determine clinical indications for referral to IBS services, taking into account cost effectiveness.

Recommendations about medicines

The guideline will assume that prescribers will use a medicine's summary of product characteristics to inform decisions made with individual patients.

This guideline recommends some medicines for indications for which they do not have a UK marketing authorisation at the date of publication, if there is good evidence to support that use. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. The patient (or those with authority to give consent on their behalf) should provide informed consent, which should be documented. See the General Medical Council's Good practice in prescribing and managing medicines and devices for further information. Use of medicines outside their licensed indications ('off-label use') are noted in the recommendations.

Key priorities for implementation

The following recommendations were identified as priorities for implementation in the 2008 guideline and have not been changed in the 2015 update.

Initial assessment

- Healthcare professionals should consider assessment for irritable bowel syndrome (IBS) if the person reports having had any of the following symptoms for at least 6 months:
  - **A**bdominal pain or discomfort
  - **B**loating
  - **C**hange in bowel habit. **[2008]**
- 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 2 of the following 4 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]**

Diagnostic tests

- 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]**
- 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]**

Dietary and lifestyle advice

- 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]**
- 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]**

Pharmacological therapy

- 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]**

- 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 mg to 10 mg equivalent of amitriptyline), taken once at night, and review regularly. Increase the dose if needed, but not usually beyond 30 mg. At the time of publication (February 2015), TCAs 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. **[2015]**

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Diagnosis and management of irritable bowel syndrome (IBS) can be frustrating, both for people presenting with IBS symptoms and for clinicians. Both parties need to understand the limitations of current knowledge about IBS and to recognise the chronic nature of the condition.

1.1 Diagnosis of IBS

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.

1.1.1 Initial assessment

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:

- **A**bdominal pain or discomfort
- **B**loating
- **C**hange in bowel habit. **[2008]**

1.1.1.2 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:

- signs and symptoms of cancer in line with the NICE guideline on suspected cancer: recognition and referral
- inflammatory markers for inflammatory bowel disease. **[2017]**

1.1.1.3 This recommendation has been withdrawn. **[2017]**

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 2 of the following 4 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 Diagnostic tests

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 or 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]**

1.2 Clinical management of IBS

1.2.1 Dietary and lifestyle advice

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]**

1.2.1.2 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]**

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]**

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]**

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]**

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

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]**

1.2.2 Pharmacological therapy

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).

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]**

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 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]**

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 mg to 10 mg equivalent of amitriptyline), taken once at night, and review regularly. Increase the dose if needed, but not usually beyond 30 mg. At the time of publication (February 2015), TCAs and selective serotonin reuptake inhibitors (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. **[2015]**

1.2.2.7 Consider SSRIs for people with IBS only if TCAs are ineffective. 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. **[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 to 12 months. 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. For guidance on safe prescribing of antidepressants (such as TCAs and SSRIs) and managing withdrawal, see NICE's guideline on medicines associated with dependence or withdrawal symptoms. **[2015]**

1.2.3 Psychological interventions

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]**

1.2.4 Complementary and alternative medicine (CAM)

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

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

1.2.5 Follow-up

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]**

Recommendations for research

In 2008, the guideline development group made the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future.

As part of the 2015 update, the committee made 3 additional recommendations for research on the clinical and cost effectiveness of a low FODMAP diet, low-dose tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitors (SSRIs) in primary care, and computerised CBT and mindfulness therapy. These can be found in the addendum.

Low-dose antidepressants

Are low-dose TCAs, SSRIs and serotonin and norepinephrine reuptake inhibitors (SNRIs) effective as first-line treatment for irritable bowel syndrome (IBS), and which is the most effective and safe option?

Why this is important

Reviews have shown that TCAs and SSRIs have each been compared with placebo in the treatment of IBS, but not at low doses. In practice, TCAs are used at higher doses, and concordance with treatment is poor because of side effects. The Guideline Development Group clinicians believe that at low doses (5 mg to 10 mg equivalent of amitriptyline), TCAs could be the treatment of choice for IBS, but there is a lack of evidence to support this. A newer type of antidepressant, SNRIs, may also be useful in the treatment of IBS-associated pain. A large randomised trial is proposed, comparing an SSRI, a TCA and an SNRI with placebo. Participants should be adults with a positive diagnosis of IBS, stratified by type of IBS and randomised to treatments. The type of IBS is defined by the predominant bowel symptom: diarrhoea, constipation or alternating symptoms. The primary outcome should be global improvement in IBS symptoms. Health-related quality of life should also be measured, and adverse effects recorded. Study outcomes should be assessed 12, 26 and 52 weeks after the start of therapy.

Psychological interventions

Are the psychological interventions CBT, hypnotherapy and psychological therapy all 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?

Why this is important

Reviews show some evidence of effect when comparing psychological interventions with a control group, with the greatest effect shown in people who have refractory IBS. Many trials are small in size. Certain psychological interventions – namely, CBT, hypnotherapy and psychological therapy – are thought to be useful in helping people with IBS to cope with their symptoms, but it is unclear at what stage these should be given, including whether they should be used as first-line therapies in primary care. A large randomised trial is proposed, comparing CBT, hypnotherapy and psychological therapy (in particular, psychodynamic interpersonal therapy). Participants should be adults with a positive diagnosis of IBS, and they should be stratified into those with and without refractory IBS and then randomised to treatments. The primary outcome should be global improvement in IBS symptoms. Health-related quality of life should also be measured, and adverse effects recorded. Study outcomes should be assessed 12, 26 and 52 weeks after the start of therapy.

Refractory IBS

What factors contribute to refractory IBS?

Why this is important

Most people with IBS experience symptoms that are relatively short-lived or that only trouble them on an intermittent basis. Some people, however, develop chronic and severe symptoms that are difficult to treat. There are relatively few prospective studies that have investigated this problem.

A large, prospective, population-based cohort study is proposed, which would evaluate people in the community with IBS symptoms according to measures of bowel symptomatology, physical symptom profile, psychological symptoms, childhood adversity, psychiatric history, social supports, quality of life and other relevant potential predictors.

Participants would be re-evaluated 12 and 24 months later using similar measures. Baseline variables would be used to predict chronicity of symptoms, quality of life and healthcare utilisation at 12 and 24 months.

Relaxation and biofeedback

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

Why this is important

Reviews of biofeedback and relaxation therapies suggest a positive effect on the control of IBS symptoms, but evidence is limited and not sufficient to make recommendations. Patient representation in the Guideline Development Group supports this view, from a personal and anecdotal perspective.

Recent developments in computer-aided biofeedback methods merit investigation. A large randomised trial is proposed to compare relaxation therapy, computer-aided biofeedback therapy and attention control in primary care. Participants should be adults with a positive diagnosis of IBS, and they should be stratified into those with and without refractory IBS and then randomised to treatments. The primary outcome should be global improvement in IBS symptoms. Health-related quality of life should also be measured, and adverse effects recorded. Study outcomes should be assessed 12, 26 and 52 weeks after the start of therapy. Qualitative data should be generated relating to how people with IBS perceive their condition.

Herbal medicines

Are Chinese and non-Chinese herbal medicines safe and effective as first-line therapy in the treatment of IBS, and which is the most effective and safe option?

Why this is important

Reviews of herbal medicines suggest a positive effect on the control of IBS symptoms, but evidence is limited and not sufficient to make recommendations (8 comparisons from the 6 trials provide heterogeneous data, which are very difficult to interpret). A large randomised placebo-controlled trial is proposed, comparing Chinese and non-Chinese

herbal medicines (both single and multiple compounds) that are available in the UK as standard preparations. Participants should be adults with a positive diagnosis of IBS, and they should be stratified by type of IBS and then randomised to treatments. The primary outcome should be global improvement in IBS symptoms, with symptom scores recorded using a validated scale. Health-related quality of life should also be measured, and adverse events recorded. Study outcomes should be assessed 12, 26 and 52 weeks post-intervention.

Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the NICE topic page on digestive tract conditions.

For full details of the evidence and the guideline committee's discussions, see the full guideline. You can also find information about how the guideline was developed, including details of the committee.

NICE has produced tools and resources to help you put this guideline into practice. For general help and advice on putting our guidelines into practice, see resources to help you put NICE guidance into practice.

Update information

April 2017: Recommendation 1.1.1.2 was updated in line with the more recent NICE guideline on suspected cancer: recognition and referral. This recommendation is dated **[2017]**. Recommendation 1.1.1.3 was removed as it was no longer needed after the changes to recommendation 1.1.1.2.

February 2015: New recommendations on dietary and lifestyle advice and pharmacological therapy were added to the section on clinical management of IBS. The guideline addendum contains details of the methods and evidence used to update these recommendations.

Recommendations are marked as **[2017]**, **[new 2015]**, **[2015]** and **[2008]**:

[2017] indicates changes made to update the recommendation in line with more recent NICE guideline on suspected cancer: recognition and referral.

[new 2015] indicates that the evidence has been reviewed and a recommendation has been added or updated.

[2015] indicates that the evidence has been reviewed but no change has been made to the recommended action.

[2008] indicates that the evidence has not been reviewed since 2008.

Please note that in the 2015 update, recommendation 1.2.2.3 was added. Therefore, the recommendations that were numbered as 1.2.2.3 to 1.2.2.7 in the 2008 guideline have been renumbered as recommendations 1.2.2.4 to 1.2.2.8 in the 2015 update. The 2008 recommendation numbers have been retained in the full guideline.

Minor changes since publication

May 2022: We added a link to NICE's guideline on medicines associated with dependence or withdrawal symptoms in the section on pharmacological therapy.

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Accreditation