Background

- Impact of Irritable Bowel Syndrome (IBS)
- What is Irritable Bowel Syndrome
- Management of Irritable Bowel Syndrome
- Treatment for Irritable Bowel Syndrome
- NICE Guideline Update
- Case Studies
Management of IBS represents a large burden to both primary and secondary care centres\(^1\)

- 90% of those with IBS have seen a primary or secondary care physician
- 19% had been provided with a diagnosis on the first visit but 56% required 1-5 further visits to their clinician before a diagnosis could be made
Background

In a year, patients with IBS spend on average:\(^1\)

- 8.4 days seeing a doctor or nurse \(\checkmark\) 5.2 days for non-sufferers
- 5.5 days off work sick \(\checkmark\) 3.1 days for non-sufferers
- 3.9 days in bed \(\checkmark\) 2.7 days for non-sufferers
- 10.2 days where work activities have to be cut short \(\checkmark\) 4.8 days for non-sufferers

Impact of Irritable Bowel Syndrome

- Reduced sleep
- Decreased sexual functioning
- Poorer mental as well as physical health
- Problems with diet
- Problems with employment
- Problems with travel
Symptoms of Irritable bowel Syndrome

- Nausea
- Crampy abdominal pain
- An alteration in bowel habit (diarrhoea, constipation or alternating diarrhoea and constipation)
- Bloating of the abdomen
- Rumbling noises and excessive passage of wind
- Urgency
- Proctalgia Fugax
- Passage of mucus with the stool
What Causes Irritable Bowel Syndrome?
What Causes Irritable Bowel Syndrome?

Leads to:

A Abdominal PAIN

B BLOATING

C Change in bowel habit
## NICE Guidelines

<table>
<thead>
<tr>
<th><strong>ROME III</strong>¹</th>
<th><strong>NICE</strong>²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrent abdominal pain/discomfort for &gt;3 days/month in the past 3 months, associated with two or more of:</td>
<td>Abdominal pain/discomfort relieved by defaecation or associated with altered stool frequency/form, plus two or more of:</td>
</tr>
<tr>
<td>● Improvement with defaecation</td>
<td>● Altered stool passage</td>
</tr>
<tr>
<td>● Onset associated with change in stool frequency</td>
<td>● Abdominal bloating/distension</td>
</tr>
<tr>
<td>● Onset associated with change in stool form</td>
<td>● Symptoms made worse by eating</td>
</tr>
<tr>
<td>● Passage of mucus</td>
<td></td>
</tr>
</tbody>
</table>

RED FLAGS!

Red flag symptoms which are *not* typical of IBS:

- Pain that awakens/interferes with sleep
- Diarrhoea that awakens/interferes with sleep
- Blood in the stool (visible or occult)
- Weight loss
- Fever
- Abnormal physical examination
- Anaemia
- Elevated CA125
Classification of Irritable Bowel Syndrome

Irritable bowel syndrome can be subtyped according to the predominant stool form:\textsuperscript{1}

**IBS-A:** Irritable Bowel Syndrome with alternating symptoms of diarrhoea and constipation

**IBS-C:** Irritable Bowel Syndrome with constipation as primary bowel dysfunction

**IBS-D:** Irritable Bowel Syndrome with diarrhoea as the primary bowel dysfunction

RECOMMENDATION

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)
- C-reactive protein (CRP)
- Antibody testing for coeliac disease (endomysial antibodies [EMA] or tissue transglutaminase [TTG]).
RECOMMENDATION

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).
What Treatment is Available?

IBS is a heterogenous disorder

Aim of management - symptom control

So no cure as such for IBS! Conventional treatments include

- Pharmacological
- Dietary modification
- Relaxation therapy
- Acupuncture No longer recommended
- Gut Directed Hypnosis/ CBT
Advice to give

We are not going to cure IBS but manage symptoms
Reassure that it is a benign condition

Diet:
Eat regularly! Limit tea and coffee
Reduce processed foods
Reduce insoluble fibre, increase soluble fibre
Low wheat diet
FODMAP diet
Low Lactose diet
Pharmacological management should be tailored to subtype

Aim of current treatments is symptomatic relief of the most troublesome symptom, rather than cure\(^1,2\)

Different subtypes require different management strategies:\(^1-3\)

- IBS with constipation (IBS-C)
- IBS with diarrhoea (IBS-D)
- IBS-alternating (IBS-A)

---

Drugs may affect bowel function

Drugs causing constipation;

- Opiates\(^1\)
- Calcium channel blockers\(^2\)
- Iron supplements\(^3\)
- Tricyclic antidepressants\(^4\)

Some antispasmodics are effective for IBS-associated pain

Antimuscarinic antispasmodic agents specifically block muscarinic receptors

- Dicycloverine
- Propantheline
- Hyoscine
- Smooth muscle relaxants;
- Alverine,
- Mebeverine

Antispasmodics are advised for non-constipated IBS patients and should be taken before meals

Other Management

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

Increases anal sphincter tone, reduces colonic propulsion and secretion

Reduce sorbitol and artificial sweetener use

Titrate dose to clinical response

Peppermint Oil for relief of abdominal colic and bloating

Trial of Probiotics for one month
Laxatives may ease constipation

Avoid dosing for rapid clear out!!

Lactulose may cause excessive flatus and bloating

Bulking agents (e.g. ispaghula, psyllium)\textsuperscript{1,2}

- For \textit{episodic hard stools}
- Absorb water to bulk stool
- May exacerbate bloating and flatulence

Softeners (e.g. docusate)\textsuperscript{1}

- Used as \textit{adjuvants}
- Emulsify stools

\begin{itemize}
  \item \textsuperscript{1} Emmanuel A. \textit{Therap Adv Gastroenterol} 2011; 4: 37-48.
  \item \textsuperscript{2} Spiller R, \textit{et al.} \textit{Gut} 2007; 56: 1770-1798.
\end{itemize}
Laxatives may ease constipation

Stimulant laxatives (e.g. senna, bisacodyl)\(^1\-3\)

- For **occasional use**
- Stimulate peristalsis
- Can cause colic, dose escalation needed

Osmotic laxatives (e.g. PEG, magnesium sulphate)\(^1\-4\)

- For **regular hard stools/infrequency**
- Cause stool to retain water

NICE has recently updated its guideline on IBS in adults¹

Linaclotide is now included as a recommended pharmacological treatment¹

NICE recommends linaclotide for IBS-C when:¹

- Optimal or maximum tolerated doses of previous laxatives from different classes have not helped, and
- The patient has had constipation for at least 12 months

LINACLOTIDE

Is a peptide which acts as an **agonist of GC-C 2C receptor** in the intestinal lumen. This

1. reduces the activation of colonic sensory neurons, **reducing pain**;

2. and activates colonic motor neurons, which increases smooth muscle contraction and thus **promotes bowel movements**
LINACLOTIDE

**Indications**
moderate to severe irritable bowel syndrome with constipation

**Cautions**
predisposition to fluid and electrolyte disturbances

**Contra-indications**
gastrointestinal obstruction; inflammatory bowel disease

**Side-effects**
diarrhoea, flatulence, abdominal pain or distension, dizziness; less commonly decreased appetite, hypokalaemia, dehydration, orthostatic hypotension

**Dose**
ADULT over 18 years, 290 micrograms once daily

**Cost**
£37.56 for 28 capsules (Almirall Ltd)
Annual treatment cost £489.62
LINACLOTIDE

NICE recommends follow-up for linaclotide patients after three months

The linaclotide SPC states that if patients’ symptoms have not improved after four weeks:

- The patient should be re-examined, and
- The benefits and risks of continuing linaclotide treatment should be reconsidered

Linaclotide should be used as per the SPC recommendations

Tricyclic Antidepressants (TCAs)

- Amitriptyline (Rajagopalan 1998; Vahedi 2008)
- Doxepin (Vij 1991)
- Trimipramine (Myren 1982)
- Imipramine (Adbul-Baki 2009; Talley 2008)
Selective Serotonin Re-uptake Inhibitors

- Fluoxetine (Vahedi 2005; Kuiken 2003)
- Paroxetine (Masand 2009; Tabas 2004; Creed 2003)
- Citalopram (Ladabaum 2010; Talley 2009; Tack 2006)
Symprove

www.symprove.com

- 4 live strains of lactobacillus
- Resets digestive system
- Food product
- 3 month course
- ~£60/month
Symprove

- Non-dairy, gluten free liquid format
- A unique research-led probiotic formula where the bacteria are alive and activated
- **Non-Dairy**- water based multi strain formula containing four naturally occurring varieties of live, activated probiotic bacteria grown on an extract of barley
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 to be given by a healthcare professional with expertise in dietary management. [NICE 2015]
The first controlled trial assessing the value of hypnotherapy in IBS reported in 1984 (Whorwell)

Systematic review of 14 studies (Tan 2005) concluded hypnosis qualified for the highest level of acceptance as being both effective and specific.

NICE guidelines suggests hypnotherapy should be considered....(Feb 2008)
What is Hypnosis?

- Originated with the Hindus of ancient India
- Western scientists first became involved in hypnosis around 1770
- Hypnosis was used by field doctors in the American Civil War (1861)

British Medical Association, 1892 endorse hypnosis but ignore it!!!
The NICE Guidelines (2008)

recommend that;

‘referral for psychological interventions (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, or those patients presenting with refractory IBS’.
‘The Gut Directed Approach’

- Specific techniques aimed at controlling and normalising gut function

- Tapping into the potential of the unconscious mind suggesting it is becoming more powerful, stronger and may be directed to gain more control over the gut

- ‘..imagine a surge of control from your mind over your gut and the gut responding….’
The Gut Directed Approach

- Hand warmth on abdomen

- Image of a ‘normal gut’

- Imagined rehearsal

- Post hypnotic suggestions
Post Hypnosis

- Reduction of functional colonic motility
- Change in extra-colonic sensitivity
- Change in rectal sensitivity
- Change in quality of life
- Improved cognitive scores

(Gonsalkorale W Gastroenterology 2000)
NICE Guidance

First streamline to predominant symptom

- Bloating/wind/pain - antispasmodics
- Constipation –laxatives (but not lactulose)
- Diarrhoea-loperamide

Second line

- Tricyclics starting at low doses at night (eg 5-10mg of amitriptyline, dose rarely needs to exceed 30mg)
- Consider SSRIs if tricyclics ineffective
- Review monthly after starting medication then every 6-12m
Person with any of these symptoms for at least six months (abdominal pain or discomfort, bloating, change in bowel habit)

**Investigations in primary care**
- Full blood count (for anaemia)
- Erythrocyte sedimentation rate test
- Reactive protein test (for inflammatory bowel disease)
- Antiendomysial antibody or tissue transglutaminase test (for coeliac disease)

**Red flag symptoms**
- Rectal bleeding
- Unexplained unintentional weight loss
- Family history of bowel or ovarian cancer
- Late onset (age over 60)
Assess for anaemia; abdominal, pelvic (if appropriate), and rectal masses; and inflammatory bowel disease

**Immediate referral to secondary care**

**Management of IBS**
Should be based on the nature and severity of symptoms and individual or combinations of medication, with lifestyle advice, directed at the predominant symptom(s)

**Lifestyle**
Assess diet: reduce fibre intake; take soluble fibre and consider dietitian referral
Assess level of physical activity: encourage increased levels of activity
Patient information resource: with dietary, lifestyle and self-help advice

**Drug treatment**
Consider single or combination therapies:
- Antispasmodics
- Antimotility agents (lactate dose)
- Laxatives (lactate dose)
- 2nd line tricyclics (or selective serotonin reuptake inhibitors)

**Follow-up to evaluate response**
(timescale negotiated between clinician and patient)

**Not effective**
Continuing symptom profile
More than 12 months’ duration: consider behaviour therapies (hypnotherapy, psychotherapy, cognitive behaviour therapy)

© Poole Hospital NHS Foundation Trust
Case Study

Ms CT

- 21 yrs
- Constipation 0 – 1 times per alternate days. No nocturnal symptoms. Mucus hard pelletey stool

- Bloating ‘I look like I’m pregnant’... with iphone photos!

- Can’t eat because its so uncomfortable

- Normal bloods, weight increasing
Case Study

Ms TW

30 yr old
‘Diarrhoea’
BO 3-4x per day in the morning no nocturnal symptoms
Soft stool, no bleeding
Uncomfortable tummy, bloating
Teacher, gets better in school holidays
Bloods normal
Case Study

Mr BN

- 40 years old
- Always had a ‘funny tummy’ particularly in times of stress, more aware of it of late
- Swinging between diarrhoea and constipation, colicky pain when constipated. Now more diarrhoea than anything- up in the night
- Recent divorce, repossession of house, loss of custody of children
- On review:
  - Not eating properly, weight loss 10 lbs
  - Occasional rectal bleeding on the paper
  - Normal bloods and examination
Take home Messages

- Make a positive diagnosis of IBS
- Reassess for red flags at review
- Nocturnal diarrhoea is uncommon in functional disease
Conclusions

IBS is a chronic, functional, relapsing, and often lifelong gastrointestinal disorder that is estimated to affect 10-20% of the UK population\(^1\)

IBS has a greater impact on quality of life than diabetes and renal failure\(^2\)

IBS is a multifactorial disease which is generally characterised by abdominal pain, bloating and change in bowel habit\(^1\)

IBS can be sub-classified (subtyped) according to the predominant stool form: IBS-C, IBS-D, IBS-A


Questions?

"I'm afraid that your irritable bowel syndrome has progressed. You now have furious and vindictive bowel syndrome."