This program is sponsored by the International Foundation for Gastrointestinal Disorders. The views and opinions expressed in this presentation do not necessarily reflect the official position of IFFGD. Information and resources shared should not replace any medical care you are receiving. Finally, it is important to always consult with your doctor or other health care provider before making decisions about your treatment.

The following slides were presented during the *Nancy and Bill Norton Education Series* Event at the University of Michigan Food for Life Kitchen. To view this presentation and the all videos available during this program, please visit [http://bit.ly/NES2020MI](http://bit.ly/NES2020MI).

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**Living your **BEST** IBS Life**

Practical Tools to **Beat the Battle with your Bowels**

**Justin Brandler MD**
University of Michigan Gastroenterology
No financial disclosures

Roadmap

- **What is IBS?**

- **Tips for making the most of your GI visit**
  - Practical tools for helping us help you

- **Treatments**
  - Placebo and nocebo effect
  - Natural supplements, pre/probiotics, herbals
  - Cannabis
  - Diet
  - Complementary treatments
  - GI Behavioral Health
  - Prescription medications
What IBS is…

- IBS = Irritable Bowel Syndrome
- Abdominal pain/discomfort + Abnormal bowel movements
- Usually constipation or diarrhea (but can be both or neither!)
- Very complex physiology


What IBS is NOT…

- IBD = Inflammatory Bowel Disease
  - Crohn’s disease, ulcerative colitis, microscopic colitis

- FATAL
  - Does not affect quantity of life but does affect QUALITY

- ALL in your head!
  - Though often the brain contributes to the problem
  - Called “Brain-Gut-Microbiome Interaction”
Making the most of your GI Visit
Organize your thoughts/experiences

• Notebooks can be helpful for self-reflection, discovering triggers

• Notebooks NOT helpful for limited office visits

• One page summary very helpful: “IBS Snapshot”

Making the most of your GI Visit
Tests we are looking for (if already done)

Lab work:
• CBC (complete blood count)
• BMP or CMP (chemistry panel)
• Liver function tests (hepatic panel)
• C-reactive protein
• Sedimentation rate
• Celiac testing (tissue transglutaminase, total IgA levels)

Imaging (dates performed):
• CT scans or MRI’s of abdomen
  - Full reports + images sent most helpful

Stool studies:
• Fecal calprotectin or lactoferrin
• C. diff testing (clostridium difficile)
• Giardia and cryptosporidia testing
• GI PCR (panel for many different infections)

Scopes (upper endoscopy, colonoscopy):
• Full reports most helpful
• Biopsy reports also important (pathology)
• Images less important
• EGD = upper endoscopy
1) Predominant symptoms:
- Diarrhea, Bristol Type 6-7
- Abd. pain better after BM
- 3-4 days/week

2) Triggers:
- Garlic, onions, eating out
- Stress

3) Prior testing (results attached)
- CBC, CMP, CRP: 10/2019
- Stool studies: C. diff, fecal calpro: 11/2019
- Imaging: CT scan 12/2019
- Scopes: EGD + colonoscopy 1/2020

4) Previous treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Duration</th>
<th>Reason for stopping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gluten free diet</td>
<td>4 wks</td>
<td>Not effective</td>
</tr>
<tr>
<td>Hyoscyamine 0.375mg</td>
<td>1 dose</td>
<td>Jittery, didn't work</td>
</tr>
<tr>
<td>Augmentin 2x daily</td>
<td>14 d</td>
<td>Got C. diff</td>
</tr>
</tbody>
</table>

5) Goal: leave home w/o worrying about diarrhea
- Concerns I have: will this be my life forever?
- Treatments I’m interested in: dietary options
- Treatments I’m NOT interested in: anti-depressants, b/c I don’t want depression in my chart and affect my life insurance

Helpful Resource: ACG’s IBS Treatment Checklist

https://gi.org/patients/ibs-treatment-checklist/
Treatments
Placebo Effect

• Placebo Effect =
  Patient + **Positive** expectations + Sugar Pill = **Positive** Effect

• Average placebo response in IBS clinical trials?

  \[ 40\% \]


Treatments
Placebo Effect and IBS

If placebo effect can help 4 out of 10 patients with IBS, why bother with $ medications that can have side effects?

6 out of 10 patients **NOT** helped by placebo

+ 

Approved IBS treatments = **SUPERIOR** to placebo

*Norton Education Series*
Treatments
Placebo & Nocebo Effects

- **Placebo Effect** =
  Patient + **Positive** expectations + Sugar Pill = **Positive** Effect

- **Nocebo Effect** =
  Patient + **Negative** expectations + Sugar Pill = **Negative** Effect

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Ideal Treatment Approach
Setting ourselves up for success!

<table>
<thead>
<tr>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Share (+) prior stories with treatment</td>
</tr>
<tr>
<td>- Set timeframe for effect</td>
</tr>
<tr>
<td>- Touch base re: results</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Be hopeful for benefit</td>
</tr>
<tr>
<td>- Patience = a virtue</td>
</tr>
<tr>
<td>- Play active role in treatment process</td>
</tr>
</tbody>
</table>

- Share **difference** between side effect rates:
  treatment % - placebo %
- Explore patient expectations

- Honest self-reflection:
  *Am I expecting side effects?*
- New med = new experience
- Pessimism = ↑ nocebo effect

Treatments
Natural supplements, pre/probiotics

**IBS-Diarrhea**

**Soluble fiber** (dissolves in water)
- **Powder** better than capsules/gummies
  - Helps you feel **less hungry**, ↓ cholesterol, maintain blood sugar
  - Examples: psyllium based (Metamucil): most studied
  - ↓ Less bloating: wheat dextrin (Benefiber), methylcellulose (Citrucel)

**Prebiotics**
- high-fiber foods that feed gut bacteria to maintain healthy balance
  - minimally studied in IBS, not better than placebo

**Probiotics**
- LOTS of various strains/preparations, makes studies hard to interpret
  - Not specifically recommended for IBS, very controversial
  - Most studied strains in IBS: *Lactobacillus, Bifidobacterium*
  - Visbiome (VSL#3, prescription), Align, Culturelle, Activia® yogurt

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Treatments
Herbals

**IBS-Diarrhea**

**Iberogast (STW5)**
- recently studied, ↓ symptoms from IBS and functional dyspepsia
  - caution if liver disease, bleeding risk, on anti-anxiety meds

**Peppermint oil**
- well studied, ↓ symptoms from IBS and functional dyspepsia
  - IĮgard popular brand, generics also available

**Turmeric/Curcumin/Xanthofen**
- fairly studied in IBS, ↓ anti-inflammatory effects, possible role in mild Crohn’s
  - possible role in constipation as well, ↓ prebiotic

**Glutamine**
- fairly studied, possible role in post-infectious IBS
  - ↓ restore intestinal permeability or “leaky gut”

**Berberine**
- fairly studied, ↓ diarrhea frequency, abdominal pain frequency, urgency
  - relatively safe

Treatments
Natural supplements, pre/probiotics

<table>
<thead>
<tr>
<th>IBS-Constipation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soluble fiber</strong> (dissolves in water)</td>
</tr>
<tr>
<td>• aim for <strong>more</strong> water</td>
</tr>
<tr>
<td>• all previous statements apply</td>
</tr>
<tr>
<td><strong>Aloe vera</strong></td>
</tr>
<tr>
<td>• Anti-inflammatory and pain relief effect</td>
</tr>
<tr>
<td>• Can affect absorption of many drugs including blood thinners</td>
</tr>
<tr>
<td><strong>Pre/Probiotics</strong></td>
</tr>
<tr>
<td>• Previous statements apply</td>
</tr>
<tr>
<td>• Would not recommend if a lot of bloating</td>
</tr>
<tr>
<td>• Most studied strain in IBS-C: <em>Bifidobacterium animalis</em></td>
</tr>
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</table>


Treatments
Cannabis

• Almost **NO** preparations are created equal
  - THC = affects receptors in gut **AND** brain → euphoria, etc.
  - CBD = affects receptors in gut but **NOT** brain
  - Often supplements have combo %’s of THC + CBD
• Generally ↓ GI motility especially stomach
• Promising randomized trial in IBS for ↓ abdominal pain
• **STAY TUNED:** many more studies to come

Treatments
Diet

**IBS-Diarrhea**

**Low FODMAP diet**
- F = Fermentable, O D M = Oligo- Di-, Mono-saccharides and P = polyols
- very well studied
- NOT A FOREVER DIET!
- **restriction phase** to see response (2-6 weeks) → **re-introduction** → **personalization**

**Gluten free diet** (if celiac disease ruled out)
- not recommended for IBS: ↓ whole grains important for health
- BUT…some patients without celiac disease may be sensitive to gluten
- the culprit may not be gluten but actually fructan and/or wheat allergy

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**Restrictiveness of Diet**

<table>
<thead>
<tr>
<th>Low FODMAP</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Grains</td>
<td>Wheat Free</td>
</tr>
<tr>
<td>Fructan Free</td>
<td>Gluten Free</td>
</tr>
<tr>
<td></td>
<td>Low FODMAP</td>
</tr>
</tbody>
</table>

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**IBS-Constipation**

“**HIGH**” FODMAP diet = natural laxatives
- Prunes
- Summer fruits: peaches, watermelon, cherries
- Aloe
- Rhubarb

**Low FODMAP**
- Kiwi

https://www.shutterstock.com/search/kiwi+fruit
https://www.healthline.com/nutrition/best-weight-loss-fruits
Treatments
GI Behavioral Health

• Possibly our **most effective non-medication** option for IBS treatment

• Addresses the **Brain-Gut Connection**
  - Brain = Amplifier
  - Gut = Speaker

https://www.pinterest.com/pin/851602610772758467/
https://audioengineusa.com/shop/powerspeakers/atk-plus-classic-speakers/

Treatments
GI Behavioral Health

**Cognitive Behavioral Therapy (CBT)**

• **Number Needed to Treat (NNT)** = # patients needed to treat to see benefit
  - want *low* # (like golf)
  - anything <10 is GOOD

**NNT = 3!!!**

Treatments
GI Behavioral Health

Gut Directed Hypnotherapy
• Not hypnosis like at the state fair
• Tunes down the “amplifier”

NNT = 4!!!


Treatments
GI Behavioral Health

• Early adverse life events are associated with IBS

• Include childhood/adult physical and sexual abuse

Bradford et al. CGH 2012
### Treatments Summary

#### IBS-Diarrhea

<table>
<thead>
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<tr>
<td>Herbals</td>
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<tr>
<td>Iberogast</td>
<td>Peppermint oil</td>
<td>Cannabis</td>
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<td>Turmeric/Curcumin</td>
<td>Glutamine</td>
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<td>Berberine</td>
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<tr>
<td>Diet</td>
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<td>Gluten free</td>
</tr>
<tr>
<td>Complementary</td>
<td></td>
<td></td>
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<tr>
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<td>Yoga</td>
<td>Acupuncture</td>
</tr>
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<td>GI Behavioral Health</td>
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<tr>
<td>Cognitive Behavioral Health</td>
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<td>Gut directed hypnotherapy</td>
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#### IBS-Constipation

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<td>Diet</td>
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<td></td>
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<tr>
<td>“High” FODMAP: prunes, peaches, cherries, rhubarb, watermelon</td>
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<td>Gluten Free</td>
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Treatments - IBS-D Medications

**Hitting the brakes**
- loperamide
- diphenoxylate + atropine
- bile acid binders
- 5-HT3 antagonists
- eluxadoline

**Cramping Calmers**
- hyoscyamine
- dicyclomine

**Sensitive Nerve Settlers**
- Low dose anti-depressants
- tricyclics, SSRI’s, SNRI’s

**Command Center Control**
- GI Behavioral health

**↓ Bacterial Build-Up**
- Rifaximin
- Various other antibiotics

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Treatments - IBS-C

**Low cost laxatives**
- PEG (Miralax)
- Mag citrate
- Milk of mag

**Step on the gas**
Stimulant laxatives
- senna
- bisacodyl

**Poop Propulsion**
- prucalopride
- tegaserod*

**Stool secretors**
- linaclotide
- lubiprostone
- plecanatide
- tenapanor

**Brick Wall Breakers**
- Squatty potty
- Pelvic floor physical therapy

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https://www.dreamstime.com/strong-healthy-happy-intestine-character-strong-healthy-happy-intestine-character-flat-cartoon-illustration-icon-design-image101776352
https://www.pinterest.com/pin/851602610772758467/

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Norton Education Series
Summary
Tools for Living your BEST IBS Life

- **IBS** is a problem along **Gut-Brain-Microbiome Axis**

- Prepare your **IBS Snapshot** before visit

- Numerous **effective** treatments
  - Work with your provider to tip the scales in your favor:
    - ↑ Placebo + ↓ Nocebo Effects
  - Many natural supplements, herbals, diet options worth trying
  - GI behavioral health is safe and very effective
  - Many prescription meds targeting various mechanisms

Thank you for listening!

@JBrandlerMD
@BrandlertheBMMD