Welcome to the Virtual Grand Rounds Waiting Room – The educational activity will begin promptly at 8pm Eastern.

Participating in the Webinar

All attendees will be muted and will remain in Listen Only Mode. Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.
How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR
ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2020 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2021 for this activity.

ACG will submit MOC points on the first of each month. Please allow 3-5 business days for your MOC credit to appear on your ABIM account.

MOC QUESTION
If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

Include specific strategies or changes that you plan to implement. THESE ANSWERS WILL BE REVIEWED.
ACG Virtual Grand Rounds

Join us for upcoming Virtual Grand Rounds!

Week 18: What's New With Those "Other" Colitides?
Anne G. Tuskey, MD, FACG
July 23, 2020 at Noon EDT

Week 19: Update on the Management of Upper GI Bleeding
John R. Saltzman, MD, FACG
July 30, 2020 at Noon EDT

Visit gi.org/ACGVGR to Register

COVID-19: Overcoming Operational Challenges of the New Normal
 Practical guidance for financial, staffing, and patient-related operational issues impacting endoscopy and practice management
 MONDAY, JULY 27, 8 to 9:30 PM EDT
 Moderator: ACG President Mark B. Pochapin, MD, FACG
 Presenters:
 Louis J. Wilson, MD, FACG
 David A. Greenwald, MD, FACG
 Costas H. Kefalas, MD, MMM, FACG
 Melissa Latorre, MD, MS
 Panelists: ACG Endoscopy Resumption Task Force

Register & Learn More gi.org/ACGVGR
Disclosures:

Kate Scarlata, MPH, RDN
FODY food company (equity and consulting fees); Epicured (employee and equity); Gastro Girl, Inc., a co-parent owner of GI OnDEMAND, (equity and advisory fees)

William D. Chey, MD, FACG
Board of Directors and stock options of Gastro Girl, Inc., a co-parent owner of GI OnDEMAND, (equity and advisory fees)

Megan E. Riehl, PsyD
Gastro Girl, Inc., a co-parent owner of GI OnDEMAND, (equity and advisory fees); Consultant for Health Union, LLC

Peter Gibson, MD
Monash University financially benefits from the sales of digital applications, educational courses and literature related to the FODMAP diet.
He has published one educational/recipe book on the FODMAP diet.
Understand the evidence supporting the use of diet & behavioural therapies for IBS

Peter Gibson, MD

Management strategies in IBS in 2020

Make confident diagnosis

Harness the placebo

Dietary therapies

Psychological therapies

Adjunct therapies

Institute specific therapies

? impact/severity

? gut → brain vs brain → gut

Drugs

Manipulating microbiota

Biofeedback physiotherapy

Neuromodulation
Why diet and psychological therapies?

- Well-defined strategies
- Managing lifestyle & psychological issues for a chronic, non-fatal illness is an attractive option – non-curative drugs is an unattractive option
- Efficacy for all symptoms in 3 of 4 patients irrespective of bowel habits
- Self-empowering

Why should we use diet in IBS?

Ingestion of food triggers symptoms in >60% patients
Huge patient interest in using diet to treat illness
Primary behavioural factor manipulated by IBS patients = self empowerment
Multiple mechanisms by which food can induce symptoms
RCT evidence for efficacy of dietary change in IBS
If we don’t engage, the naturopath et al will
Most common dietary strategies for IBS

- Gluten-free diet
- Low FODMAP diet
- Exclusion diets based on antibody or leukocyte activation test

**ACG Guidelines**

We suggest a low FODMAP diet for overall symptom improvement in IBS patients. (Recommendation: weak; Quality of evidence: very low)

We suggest against a gluten-free or exclusion diet based upon antibody or leukocyte activation test for overall symptom improvement in IBS patients. (Recommendation: weak; Quality of evidence: very low)

---

**The FODMAP concept:**
Consider all non-digestible & slowly-absorbed short-chain carbohydrates collectively

- Fructose
- Lactose
- Fructans
- Galacto-oligos
- Polyols

**All may distend intestine via osmotic effect + gas production**

**Additive contribution to symptoms in the presence of visceral hypersensitivity**

*Images of MRIs with labeled carbohydrates and a graph showing hydrogen production over time.*

**References:**

- Ford et al, *Am J Gastroenterol* 2018
- Ong et al, *JGH* 2010
- Murray et al, *AJG* 2014
FODMAPs - where are these found?

<table>
<thead>
<tr>
<th>Fermentable Oligosaccharides</th>
<th>Disaccharides</th>
<th>Monosaccharides</th>
<th>And Polyols</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>XS Fructose</th>
<th>Lactose</th>
<th>Fructans</th>
<th>GOS</th>
<th>Polyols</th>
</tr>
</thead>
</table>

Virtual Grand Rounds

FODMAP dietary program

- **Phase 1**: Avoid all foods high in FODMAPs. Replace with foods low in FODMAPs in each food group.
- **Phase 2**: STEP DOWN according to tolerance.
- **Phase 3**: PERSONALISED DIET (maintenance)

Efficacy: 2-6 weeks

Dietitian-delivered
Virtual Grand Rounds

Phase 1: Strict elimination low FODMAP diet

- **Goals:**
  - To determine the role of FODMAPs in symptom genesis
  - To learn about FODMAPs and where they are in food

- **Not meant to be a long-term option**
  - If of no benefit, must be stopped
  - If needed strictly long-term to maintain quality of life, need to consider other strategies (e.g., psychotherapeutic strategies)

RCTs: low FODMAP vs other diet for IBS

- Feeding study: vs placebo diet
- vs high FODMAP diet
- vs habitual diet
- vs modified NICE diet

*Staudacher et al, JHND 2012; Holmos et al Gastroenterology 2014; McIntosh et al, Gut 2017; Esward et al, AJG 2017; Staudacher et al Gastroenterology 2018*
Phase 2: FODMAP re-challenge

- **Aim:**
  - To identify sensitivities to individual FODMAP sub-groups and find balance between good symptom control and expansion of the diet

- **Why re-challenge?**
  - Some FODMAPs are prebiotics (fructans & GOS) → ‘protect’ microbiota
  - Improve nutritional adequacy & social inclusion
  - Improve food variety
  - Patients learn specific triggers

---


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Phase 3: ‘Personalised’ FODMAP diet – why bother?

- **Mild restriction only**
  - ↓ effect on food-related quality of life
  - ↓ risk of nutritional inadequacy
  - ↓ impact on microbiota

- **Patient is empowered (self management)**
  → ↑ or ↓ restriction as IBS fluctuates in severity
  → understand the bad day rather than be anxious about it
Virtual Grand Rounds

Personalised FODMAP diet - outcomes

6 prospective studies
3-18 months follow up (with reintroduction)
>75% been able to reintroduce → personalised diet
Overall sustained symptom response in 57-82%
No evidence of harm

Harvie et al, World J Gastroenterol 2017; Schumann APT 2017

Virtual Grand Rounds

Strict low FODMAP diet (Phase 1) – risks

• Psychosocial implications of a restrictive diet
  • Exacerbate (or precipitate) disordered eating
  • Lead to nutritional issues
    • Inadequacy
    • Greater cost
    • Difficulty eating with travel
  • Reduced bacterial density
  • Reduced relative abundance of Bifidobacteria

Effects minimised with reintroduction/personalised diet

Reviewed in Gibson et al, Aliment Pharmacol Ther 2020
Psychological therapies in IBS

- Good evidence for efficacy → improvement of all symptoms & QoL
- Difficulty in gaining highest level evidence → benefits overestimated(?)
  - e.g., not possible to design a blinded placebo
- Many studies have selected patients with 'refractory IBS'
- Currently often used as rescue therapy in those with perceived psychological co-morbidity
- Effective independently of effect on psychological status
  - not for just the psychologically disturbed?

---

Psychological therapies for IBS

- On-line or self-taught

Ford et al, Am J Gastroenterol 2014
## Psychological therapies for IBS – meta-analysis

**Comparison: other vs Waiting list control**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>RR</th>
<th>95% CI</th>
<th>P-Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingency management</td>
<td>0.39</td>
<td>[0.19;0.84]</td>
<td>0.89</td>
</tr>
<tr>
<td>Group CBT</td>
<td>0.41</td>
<td>[0.19;0.91]</td>
<td>0.85</td>
</tr>
<tr>
<td>CBT via the telephone</td>
<td>0.50</td>
<td>[0.29;0.94]</td>
<td>0.81</td>
</tr>
<tr>
<td>Stress management</td>
<td>0.54</td>
<td>[0.31;0.96]</td>
<td>0.73</td>
</tr>
<tr>
<td>Dynamic psychotherapy</td>
<td>0.58</td>
<td>[0.36;0.94]</td>
<td>0.69</td>
</tr>
<tr>
<td>Self-administered/minimal contact CBT</td>
<td>0.61</td>
<td>[0.45;0.83]</td>
<td>0.66</td>
</tr>
<tr>
<td>Face-to-face CBT</td>
<td>0.62</td>
<td>[0.48;0.80]</td>
<td>0.65</td>
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<tr>
<td>Acceptance and commitment therapy via the internet</td>
<td>0.62</td>
<td>[0.43;1.05]</td>
<td>0.62</td>
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<tr>
<td>Hypnotherapy</td>
<td>0.67</td>
<td>[0.49;0.91]</td>
<td>0.57</td>
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<tr>
<td>Face-to-face multicomponent psychological therapy</td>
<td>0.66</td>
<td>[0.48;0.92]</td>
<td>0.57</td>
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<tr>
<td>CBT via the internet</td>
<td>0.71</td>
<td>[0.49;1.03]</td>
<td>0.49</td>
</tr>
<tr>
<td>Multicomponent psychological therapy via the telephone</td>
<td>0.72</td>
<td>[0.43;1.20]</td>
<td>0.48</td>
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<tr>
<td>Group multicomponent psychological therapy</td>
<td>0.75</td>
<td>[0.48;1.13]</td>
<td>0.49</td>
</tr>
<tr>
<td>Group hypnotherapy</td>
<td>0.78</td>
<td>[0.53;1.13]</td>
<td>0.39</td>
</tr>
<tr>
<td>Mindfulness meditation training</td>
<td>0.79</td>
<td>[0.51;1.22]</td>
<td>0.38</td>
</tr>
<tr>
<td>Relaxation therapy or training</td>
<td>0.81</td>
<td>[0.58;1.12]</td>
<td>0.35</td>
</tr>
<tr>
<td>Stress management via the internet</td>
<td>0.85</td>
<td>[0.58;1.91]</td>
<td>0.34</td>
</tr>
<tr>
<td>Education/support</td>
<td>0.91</td>
<td>[0.69;1.19]</td>
<td>0.22</td>
</tr>
<tr>
<td>Routine care</td>
<td>0.96</td>
<td>[0.73;1.26]</td>
<td>0.16</td>
</tr>
<tr>
<td>Dietary/lifestyle advice</td>
<td>1.23</td>
<td>[0.67;2.25]</td>
<td>0.08</td>
</tr>
</tbody>
</table>

*Black et al, Neurogastroenterol 2020*

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## Which strategy?

**FODMAP diet vs Gut-directed hypnotherapy or Hatha yoga**

**Mean of overall symptoms**

![Graph showing mean of overall symptoms over time for FODMAP diet, Low FODMAP, Hypnotherapy, and Combined strategies.]

*Peters et al, Aliment Pharmacol Therap 2016*

*Schumann et al, Aliment Pharm Therap 2017*
Gut-directed hypnotherapy or yoga in IBS

When applied as a primary therapy, are as effective as a FODMAP diet in the short and longer term

- Not a rescue therapy but a front-line therapy
- Same for other psychotherapeutic approaches (e.g. CBT, mindfulness)

Making the choice of therapy

- Availability of expertise
  - e.g., FODMAP-trained dietitian, psychologist with IBS expertise
- Patient buy-in
- Concurrent co-morbidities
  - e.g., significant weight loss, loss of appetite, depression &/or anxiety
- Risks of specific therapies = choose another
  - Diet: risk of or current disordered eating
  - Hypnotherapy: psychosis
- Cost-effectiveness
Take-home messages

- Dietary and psychological strategies are rational AND efficacious AND self-empowering in IBS
- Of dietary strategies
  - FODMAP diet has evidence for efficacy for most symptoms in RCTs and the real world
- Of psychotherapeutic approaches
  - Moderate level evidence for efficacy for several techniques
  - Benefit can be attained for all symptoms and for psychological health
- All approaches should be delivered by skilled health professionals
- Personalised therapy is the rule – need to consider risks vs likely benefits

Who needs a consultation with a GI dietitian?

Kate Scarlata, MPH, RDN, LDN
MD + nutrition education

- 12-item survey asked nutrition educators at 126 U.S. medical schools to characterize nutrition instruction + quantify nutrition contact hrs occurring both inside and outside designated nutrition courses.
- Response rate of 84%.
- 99/106 respondents state they have “some” required nutrition education.
- Only 32 schools (30%) required a separate nutrition course.
- On average, students received 23.9 contact hours of nutrition instruction during medical school (range: 2–70 h).


Nutritional Therapies for GI conditions

- IBS-low FODMAP (highly nuanced diet)
- Celiac-gluten free (highly nuanced diet, label and cross-contamination issues)
- EOE-empiric 6 Food Elimination Diet (SFED) consists of whole foods but excludes the top six food allergen groups including, dairy, wheat, soy, eggs, fish/shellfish, and peanuts/tree nuts
- Gastroparesis-low fat, fiber, small particle size (Individualization is a process, takes time)
Comprehensive Nutrition Assessment

• Nutritional assessment in GI patients should include:
  • Screening for malnutrition risk
  • Screening for disordered eating and eating disorders
  • Review of the medical history
  • Review of medications and potential diet/supplement interactions and ingredients
  • Assessment of nutrient intake via FFQ or 24 hour recall or 3 day food records
  • Assessment of socioeconomic status that may impact diet (food insecurity/who shops and preps food)
  • Assessment of lifestyle factors

Malnutrition Screening Tool

• The MST is a validated tool to screen adult patients for the risk of malnutrition in the inpatients and outpatient setting.
  • Includes 2 questions: Have you recently lost weight without trying? Have you been eating poorly because of a decreased appetite?

• Malnutrition Universal Screening Tool (MUST)
  • The MUST is a validated screening tool for malnutrition suitable for adults in acute and community settings.

Hunger Vital Sign TM Two‐Question Screening for Food Insecurity

2 Questions:

• “Within the past 12 months we worried whether our food would run out before we got money to buy more.” Was that often true, sometimes true, or never true for you/your household?

• “Within the past 12 months the food we bought just didn’t last and we didn’t have money to get more.” Was that often, sometimes, or never true for you/your household?

37 million food insecure in US pre-Covid to expectation of 54 million with Covid-19 pandemic.

https://www.feedingamericaaction.org/the‐impact‐of‐coronavirus‐on‐food‐insecurity/

When to refer any GI patient to RD

Any concern you may uncover that relates to:

• Food/eating causes GI symptoms
• Interested in nutritional approach
• Food procurement may be an issue.
  • (GF and low FODMAP diet can be costly!, patient has extra expenses e.g. IBD meds.)
• Malnutrition risk
• Maladaptive eating, food fears or frustration around applying diet is present
• Noted weight change-up or down (don’t let “normal weight range” guide this decision.)
IBS: Who Is Appropriate for the LFD?

- No evidence of eating disorder, maladaptive eating or extreme food fears
- Diet recalls reveal high FODMAP foods
- Eating exacerbates symptoms
- Nutritional approach to treatment is desired
- Celiac serology testing has been completed with adequate gluten intake

Flexible approach to reducing FODMAPs: “FODMAP Gentle”

<table>
<thead>
<tr>
<th>Food group</th>
<th>Restrict only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains</td>
<td>Wheat and Rye</td>
</tr>
<tr>
<td>Vegetables</td>
<td>Onion, leek, garlic, cauliflower, most mushrooms</td>
</tr>
<tr>
<td>Fruit</td>
<td>Apple, pear, watermelon, larger quantities dried fruit</td>
</tr>
<tr>
<td>Dairy</td>
<td>Milk and traditional yogurt</td>
</tr>
<tr>
<td>Legumes</td>
<td>Beans not allowed on elimination LFD</td>
</tr>
</tbody>
</table>

Adapted from Halmos E, Gibson P Controversies and reality of the FODMAP diet for patients with irritable bowel syndrome JGH March 2019
### Potential Contraindication of FULL LFD and “FODMAP gentle” approach

<table>
<thead>
<tr>
<th>Contraindication</th>
<th>Potential negative impact of elimination diet</th>
<th>More flexible approach, “FODMAP Gentle or alternative therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active eating disorder/ARFID</td>
<td>Further decline nutrition/psychological health</td>
<td>Supportive nutrition; liberalize diet, eating disorder specialist</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>Nutritional status</td>
<td>FODMAP gentle</td>
</tr>
<tr>
<td>Unwillingness to change diet</td>
<td>Non-adherence</td>
<td>Alternative IBS therapies or FODMAP gentle</td>
</tr>
<tr>
<td>Poor capacity to follow diet (does not prepare own food/food insecurity)</td>
<td>Non-adherence</td>
<td>FODMAP gentle or no therapy</td>
</tr>
<tr>
<td>Children</td>
<td>Food fears, development of good eating habits</td>
<td>FODMAP gentle</td>
</tr>
<tr>
<td>Other dietary restrictions in place</td>
<td>Nutritional status</td>
<td>FODMAP gentle</td>
</tr>
</tbody>
</table>

Adapted from Halmos E, Gibson P JGH March 2019

### Low FODMAP 3 Phases

#### 1. Elimination
- **Time frame**: 2-6 weeks
- **Goal**: Remove all high FODMAP foods in attempt to provide symptom resolution

#### 2. Determine Sensitivities/Reintroduction
- **Time frame**: 6-8 weeks
- **Goal**: Systematically add FODMAP subtypes back into diet to identify food triggers

#### 3. Personalization
- **Time frame**: As needed for symptom management
- **Goal**: Add back successfully reintroduced FODMAP foods to expand diet to personal tolerance

Requires some level of expertise and knowledge to implement this approach
Disordered eating vs ED

Disordered eating in GI patients may include:

- Eating patterns that do not follow the cultural norm—for example, skipping meals, limiting foods, or following a restrictive diet (e.g., Paleo or ketogenic).
- Rigid approach to eating, sometimes only eating 6-10 foods, inflexible mealtimes, refusal to eat at restaurants or outside of one’s home.
- Disordered eating may be seen in irritable bowel syndrome (IBS) as a way to avoid or prevent symptoms.

ED=anorexia nervosa, bulimia nervosa and binge eating disorder.


Disordered Eating in GI Conditions

- Systematic review: 23.4% of patients with GI disease (n=691) displayed disordered eating patterns (1) Higher than the 10% in general population.
- Disordered eating behaviors are increased in adult IBS patients compared with non-IBS patients, with study results ranging from 15% to 25% (2)
- Dietary-controlled GI disorders:
  - Lifelong modifications to diet may aid in reducing symptoms associated with disruptions to the GI tract: nausea, bloating, diarrhea, constipation, weight changes, abdominal pain
  - When someone’s eating patterns take them away from normal functioning, this can be a strong indication of an eating disorder.(3)

  - Severe limitation of variety of food, thoughts about diet all-consuming

Disordered eating red flags

- Progressive food restriction within an already restrictive diet
- Refusal to reintegrate foods during a reintroduction protocol
- Evidence of body dysmorphia
- Lack of concern with a severely restrictive diet or weight loss.


ARFID

- Avoidant/restrictive food intake disorder
- Introduced in the DSM-5 as a diagnosis of eating or feeding disturbance due to lack of interest in eating, avoidance of sensory characteristics of food, and/or fear of adverse eating consequence (eg, choking, vomiting, or digestive distress).
- To meet diagnostic criteria, one doesn’t have a distorted body image and the food disturbance must lead to one or more of the following: nutritional deficiency, weight loss, psychosocial impairment, or dependence on oral nutritional supplements or tube feedings.
- ARFID cannot be diagnosed if the eating disturbance is attributable to a concurrent medical or psychiatric condition such as IBS. However, if the eating disturbance exceeds that routinely associated with the condition, clinical intervention is warranted.

ARFID & GI disorders

- Preliminary research by Zia and colleagues found that approximately 21% of their functional gastrointestinal disorder (FGID) patient sample met criteria for ARFID.
- Retrospective study of GI patients referred to GI behavioral health providers from the University of Michigan found 12.6% of the cohort met criteria for ARFID.
- Interpret with caution as ARFID and other ED screening tools not validated in IBS.


For more on this topic

Clinical Gastroenterology and Hepatology 2020;18:543–545

HERE AND NOW: CLINICAL PRACTICE

Charles J. Kahi, Section Editor

From a Dietitian’s Perspective, Diets for Irritable Bowel Syndrome Are Not One Size Fits All

Kate Scarlata, MPH, RDN,* Patsy Catsos, MS, RDN, LD,‡ and Janelle Smith, MS, RDN, CEDRD§

*Kate Scarlata Nutrition Consulting, Medway, Massachusetts; ‡GI Nutrition Inc, Portland, Maine; and §University of California, Los Angeles, Los Angeles, California
**Eating Disorders require ED expert**

**International Federation of Eating Disorder Dietitians**

Where to find an RD

<table>
<thead>
<tr>
<th>Website</th>
<th>Dietitian expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy of Nutrition and Dietetics; find an expert</td>
<td>Registered dietitian listing for a variety of disease states, including gastrointestinal.</td>
</tr>
<tr>
<td><a href="https://www.eatright.org/find-an-expert">https://www.eatright.org/find-an-expert</a></td>
<td></td>
</tr>
<tr>
<td>For a Digestive Peace of Mind</td>
<td>Low FODMAP diet knowledgeable dietitians</td>
</tr>
<tr>
<td>FODMAP Dietitian Registry</td>
<td></td>
</tr>
<tr>
<td><a href="https://www.katescarlata.com/fodmapdietitians">https://www.katescarlata.com/fodmapdietitians</a></td>
<td></td>
</tr>
<tr>
<td>International Foundation for Gastrointestinal Disorders</td>
<td>Dietitians with GI expertise</td>
</tr>
<tr>
<td>Dietitian listing</td>
<td></td>
</tr>
<tr>
<td><a href="https://www.iffgd.org/dietitian-listing.html">https://www.iffgd.org/dietitian-listing.html</a></td>
<td></td>
</tr>
<tr>
<td>International Federation of Eating Disorder Dietitians.</td>
<td>Dietitians with eating disorder expertise</td>
</tr>
<tr>
<td><a href="http://www.eddietitians.com">http://www.eddietitians.com</a></td>
<td></td>
</tr>
</tbody>
</table>
Role of Dietitian

- Diet change is of great interest to patients: 84% IBS patients perceive diet triggers IBS GI sx (1)
- Evidence reveals LFD can help 52-86% of those with IBS (2,3)
- A FODMAP intake of <12 g/d (considered therapeutic) was achieved by 44% in one study (72% w/ RD vs 31% w/o RD guidance; P < .01).(4)
- Patients more likely to go through 3 phase of intervention w/ RD guidance (4)
- Dietitian can and should screen their GI patients for maladaptive eating and/or ED prior to instructing patient on elimination diet which may trigger disordered behaviors.


Who should consult with a GI psychologist?

Megan E. Riehl, PsyD
Assistant Professor of Medicine, GI Psychologist
Clinical Program Director, GI Behavioral Health Program
University of Michigan

@DrRiehl
The age of silos must come to an end

What is Psychogastroenterology?

• Works within the framework of applying evidence-based psychological interventions to digestive conditions

• In the context of a collaborative team

**Psychogastroenterology**

**Table 1. Best Practice Update: Incorporating Psychogastroenterology Into Management of Digestive Disorders**

<table>
<thead>
<tr>
<th>Description</th>
<th>The current review provides the reader with a framework to understand the scientific rationale and best practices associated with incorporating brain–gut psychotherapies into routine GI care. We discuss how gastroenterologists can employ state-of-the-art assessment and referral techniques that ensure a tailored, precision-medicine behavioral care pathway into their unique practice settings, across the full spectrum of digestive disease.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods</td>
<td>These practice updates come from review of the literature, including existing systematic reviews and expert opinion.</td>
</tr>
<tr>
<td>Best Practice Advice</td>
<td>Gastroenterologists should routinely assess health-related QOL, symptom-specific anxieties, early life adversity, and functional impairment related to a patient’s digestive symptoms.</td>
</tr>
<tr>
<td>2</td>
<td>Gastroenterologists should master patient-friendly language on the following topics: the brain–gut pathway and how it can be affected by any number of factors; the multifactorial risk, perpetuating, and recovery factors that are involved in these disorders; and the role of a gastroenterologist to help the patient understand their disease in collaboration with their healthcare provider.</td>
</tr>
<tr>
<td>3</td>
<td>Gastroenterologists should know the structure and core features of the most effective brain–gut psychotherapies.</td>
</tr>
<tr>
<td>4</td>
<td>Gastroenterologists should establish a direct referral and ongoing communication pathway with 1–2 qualified mental health providers and assure patients that he or she will remain part of their care team.</td>
</tr>
<tr>
<td>5</td>
<td>Gastroenterologists should familiarize themselves with 1 or 2 neuromodulators that can be used to augment behavioral therapies when necessary.</td>
</tr>
</tbody>
</table>


---

**Predictive Model: To optimize successful psychogastroenterology referrals**

**It is NOT in the patient's head**

Appropriate Referrals

• Disorders of Gut-Brain Interaction (DGBIs)
  • Irritable bowel syndrome (IBS)
  • Functional dyspepsia
  • Functional heartburn / PPI non responder
  • Globus
  • Functional dysphagia

• Organic Diseases
  • Crohn’s disease
  • Ulcerative colitis
  • Gastroesophageal reflux disease
  • Chronic pancreatitis

Potentially Appropriate Referrals

• Gastroparesis
• Functional vomiting/cyclical vomiting
• Nausea
• Rumination disorder
• Avoidant-restrictive food intake disorder (ARFID)
• Orthorexia
Inappropriate Referrals

- Psych issues (depression, anxiety, OCD) are primary presenting problem and not related to GI condition
- Suicidal ideation
- Suicidal gesture within the last 6 months
- Inpatient psychiatric hospitalization within last 6 months and no ongoing mental health care
- Untreated eating disorder
- Personality disorder
- Active substance abuse
- Untreated severe mental illness
- Skepticism about behavioral therapy
- Poor motivation
- Lack of insight into role of stress/emotions in symptom exacerbation

Complications of GI Disease and Eating

- **23.4%** of patients with GI disease (n=691) displayed disordered eating patterns.
- Dietary-controlled GI disorders
  - Life long modifications to diet may aid in reducing symptoms associated with disruptions to the GI tract: nausea, bloating, diarrhea, constipation, weight changes, abdominal pain

<table>
<thead>
<tr>
<th>Celiac Disease</th>
<th>IBS and IBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necessary to follow strict, life-long gluten free diet.</td>
<td>Trial and error regimens to identify food triggers.</td>
</tr>
</tbody>
</table>

Treatment Considerations: Eating Disorders

- Progressive restriction within an already restrictive diet
- Refusal to reintegrate foods during reintroduction protocol
- Refusal to reintegrate foods during reintroduction protocol
- Evidence of body dysmorphia
- Lack of concern with a severely restrictive diet or weight loss

Attempt to screen for appropriate referrals

<table>
<thead>
<tr>
<th>Referral considerations:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the patient believe that stress impacts their symptoms AND they want to improve their ability to manage stress?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Does the patient feel motivated to participate in psychogastroenterology services?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Does the patient live within a reasonable traveling distance for weekly treatment? (Do they have access to technology to participate in telehealth services?)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Does the patient have <strong>severe co-morbidities</strong> that would require a greater level of care than short-term therapy (2-7 sessions)?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the patient responses are YES to questions 1-3 and NO to question 4:
They are an ideal referral for psychogastroenterology

We encourage completion of medical workup prior to making the referral
Advances in delivery of care

• The growth of telehealth affords many benefits
  • Access to care
  • Continuation of care during pandemic and beyond
  • Availability to receive care when health is poor

Key Suggestions for the GE: Making the referral

• GI-focused psychological services target cognitive-affective factors related to the GI illness, not general mental health concerns.
• Treatment is typically short-term and skills based.
• GI behavioral health services are typically covered by insurance under mental health or behavioral health benefits.
• “I recognize that your symptoms and pain are real. I do not believe that your symptoms are in your head. GI behavioral health services can aid in addressing brain-gut dysregulation that can drive bothersome symptoms.”

Kinsinger S (2019). Working with gastroenterologists, health administrators, and other members of the gastrointestinal and allied health care team (Ch. 6). In S. Knowles, A. Mikocka-Wallace & L. Keffer (Eds.), Psychogastroenterology with adults: A handbook for mental health professionals. Routledge.
Brain-Gut Psychotherapies

Meta-analyses conclude that psychological therapies reduce GI symptoms in adults with IBS. These effects remain significant after short-term and long-term follow-up periods:

• Over 30 RCTs
• Cognitive Behavioral Therapy (CBT) and Gut-Directed Hypnotherapy have the strongest empirical support
• 60-70% patients in clinical trials are treatment responders

Ford et al AJG 2014; 109: 1350-65

Brain-Gut Psychotherapies

• Meta-analyses conclude that psychological therapies reduce GI symptoms in adults with IBS.
  • These effects remain significant after short-term and long-term follow-up periods
  • Strongest empirical support for cognitive behavioral therapy (CBT) and gut-directed hypnotherapy
• Several evidence-based treatments are available for psychological distress associated with IBD.
  • Principles of CBT most widely accepted

Ford et al AJG 2014; 109: 1350-65
Taft et al Gastroenterol Clin N Am 2017; 46: 847-858
Brain-gut psychotherapy buy in: GI Stress Cycle

Summary

- Patients benefit from holistic, comprehensive GI care that includes psychogastroenterology.
- Understanding appropriate referrals optimizes patients ability to receive the right care and creates realistic expectations.
- Allow the GI psychologist to determine the appropriate treatment plan for each patient.
Thank you!

Connect with me @DrRiehl on 🐦 Instagram
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What is integrated care and why is it a better way to care for patients with GI issues?

William D. Chey, MD, FACG
Nostrant Collegiate Professor of Gastroenterology
Professor of Nutrition Sciences
Director – GI Nutrition & Behavioral Health Program
Michigan Medicine
Terminology:

• **Integrated care** is a general term for any attempt to fully or partially blend behavioral health services with general and/or specialty medical services.

• According to Global Health Advances in Health and Medicine, **integrative** medicine is a **care** approach that puts the patient at the center and addresses the full range of physical, emotional, mental, social, spiritual and environmental influences that affect a person’s health.

Evidence-based IBS Treatments

*Chey, et al. Gastroenterol 2020, in press*
Evidence-based IBS Treatments

Chey, et al. Gastroenterol 2020, in press

The Evolution of IBS Care Models

Traditional Care  Multi-disciplinary Care  Integrated Care

Gastroenterologist only  Gastroenterologist, diettian, behavioral therapist working independently  Team-based, collaborative, multi-disciplinary care

Chey WD. Lancet Gastro Hep 2020, in press
Integrated Care for IBS: Prospective RCT

- 188 pts with IBS randomized to usual GI care vs. team-based collaborative care model
  - Usual care GIs could obtain a nutrition or behavioral therapy consult from a provider outside of their hospital
  - Collaborative care consisted of GI, RD, and Behavioral therapists working as a team

Basnayake et al. J Gastroenterol Hepatol 2019;34 Suppl 2:182

GLOBAL DISRUPTION TO THE WORLD...INCLUDING THE GI WORLD

COVID-19

It hasn’t changed medicine.
It’s changed the practice of medicine.

AND

It’s prioritized the need to identify innovative ways to provide patients with the support they need...

WHEN and HOW they need it!
SO WHAT DOES THE NEW NORMAL LOOK LIKE?

Prior to COVID-19 | Because of COVID-19

| Practices Offering Telehealth Services | < 5% | > 84% |
| Telehealth as a % of Weekly Appointments | < 2% | > 89% |
| Forecasted Telehealth as a % of Weekly Appointment | 10% | 30% to > 40% |

Sources: American Medical Association, American Telemedicine Association, McKinsey & Company

In a national survey of 1,492 patients and 502 GI providers
97% of physicians agreed or strongly agreed that telehealth is an acceptable care delivery model
91% of patients reported their GI provider was able to address their concerns via telehealth
84% of patients said they were willing to participate in future telehealth visits


REIMBURSEMENT – THE PREP WORK

Telemedicine reimbursement varies by State. It is necessary for practices/health systems to contact their CMS and Private Insurance representatives to understand the requirements/protocols for seamless billing and reimbursement for virtual care appointments.

Requirements/protocols can vary by:
- State
- Payer
- Specific patient plan/policy

CMS
CENTER FOR MEDICARE & MEDICAID SERVICES
GLOBAL DISRUPTION TO THE WORLD...AND TO PATIENTS’ EXPECTATIONS

COVID-19

It hasn’t changed patients’ fundamental needs for care and support. It has changed patients’ & providers’ perspectives on how care is delivered!

For patients: once the “Pandora’s box of convenience” has been opened, they’re going to want it as an option

For providers: It’s opened our eyes to the possibilities...

BEYOND THE TELEHEALTH PLATFORMS—PATIENT-CENTRIC INTEGRATED VIRTUAL CARE

Providing patients with the HELP they need – WHEN and HOW They Need It!
Conclusions:

- Medications, diet changes, and behavioral interventions are evidence-based treatment options for patients with disorders of gut-brain interactions
- Integrated care models are superior to traditional GI-centric care models
- Practical issues are currently limiting widespread dissemination of integrated care
- Digital solutions/platforms may allow integrated care models to “scale” for a broader audience

Questions?

William D. Chey, MD, FACG
Kate Scarlata, MPH, RDN
Megan E. Riehl, PsyD
Peter Gibson, MD
CONNECT AND COLLABORATE IN GI

ACG & CCF IBD Circle

ACG GI Circle
Connect and collaborate within GI

ACG Hepatology Circle

ACG Functional GI Health and Nutrition Circle

ACG Women in GI Circle

ACG’s Online Professional Networking Communities
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