IRRITABLE BOWEL SYNDROME

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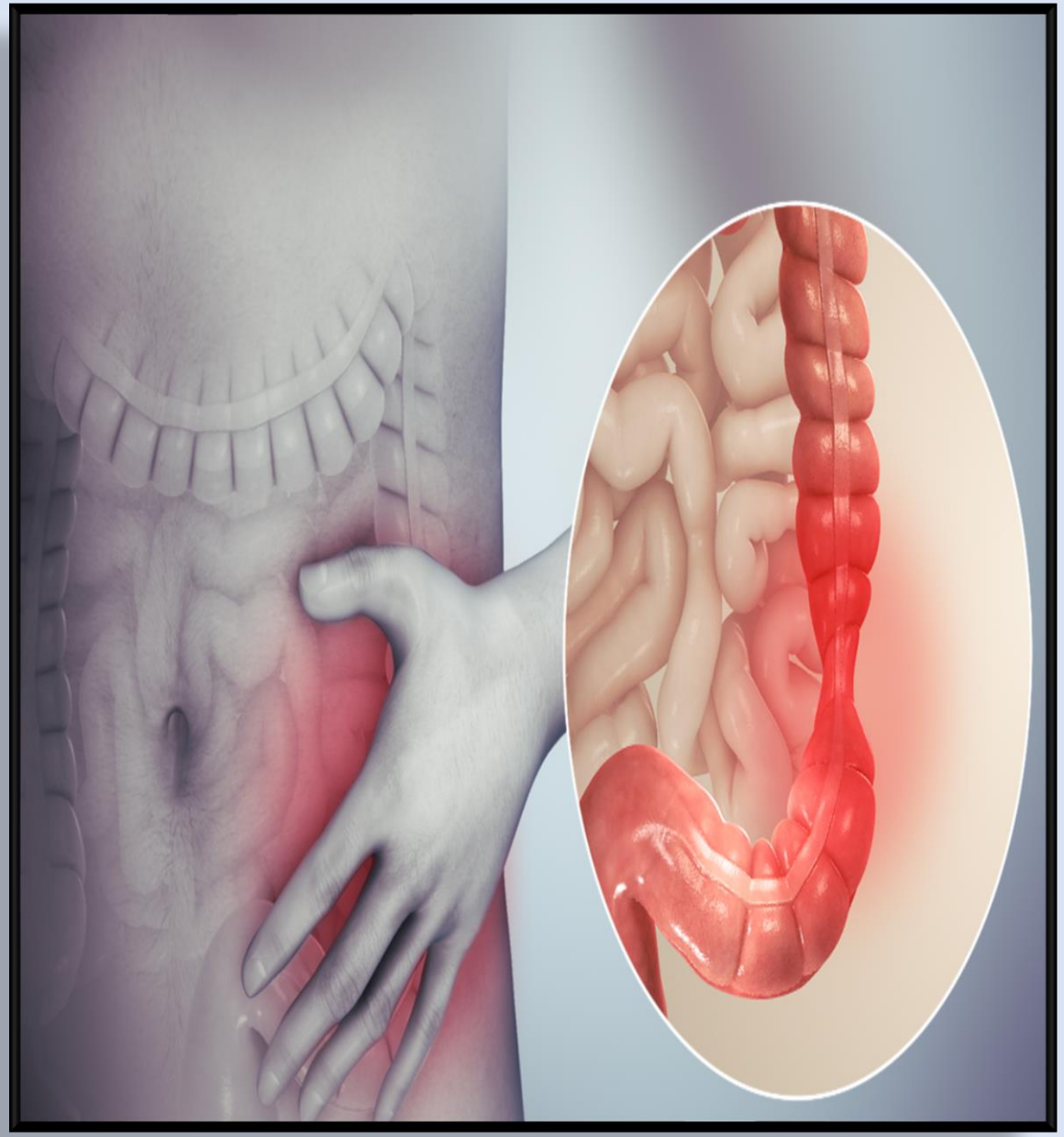
Project ECHO®

Gastroenterology Foundation of sub Saharan Africa



INTRODUCTION

- Most prevalent of the FGIDs
  - Gastroenterologist – 4.4-4.8%
- 7-16% - Recurrent abdominal pain and disordered defecation
- Dx of IBS: No longer a Dx of exclusion
  1. Careful Hx and physical Ex
  2. Use of limited Dx tests

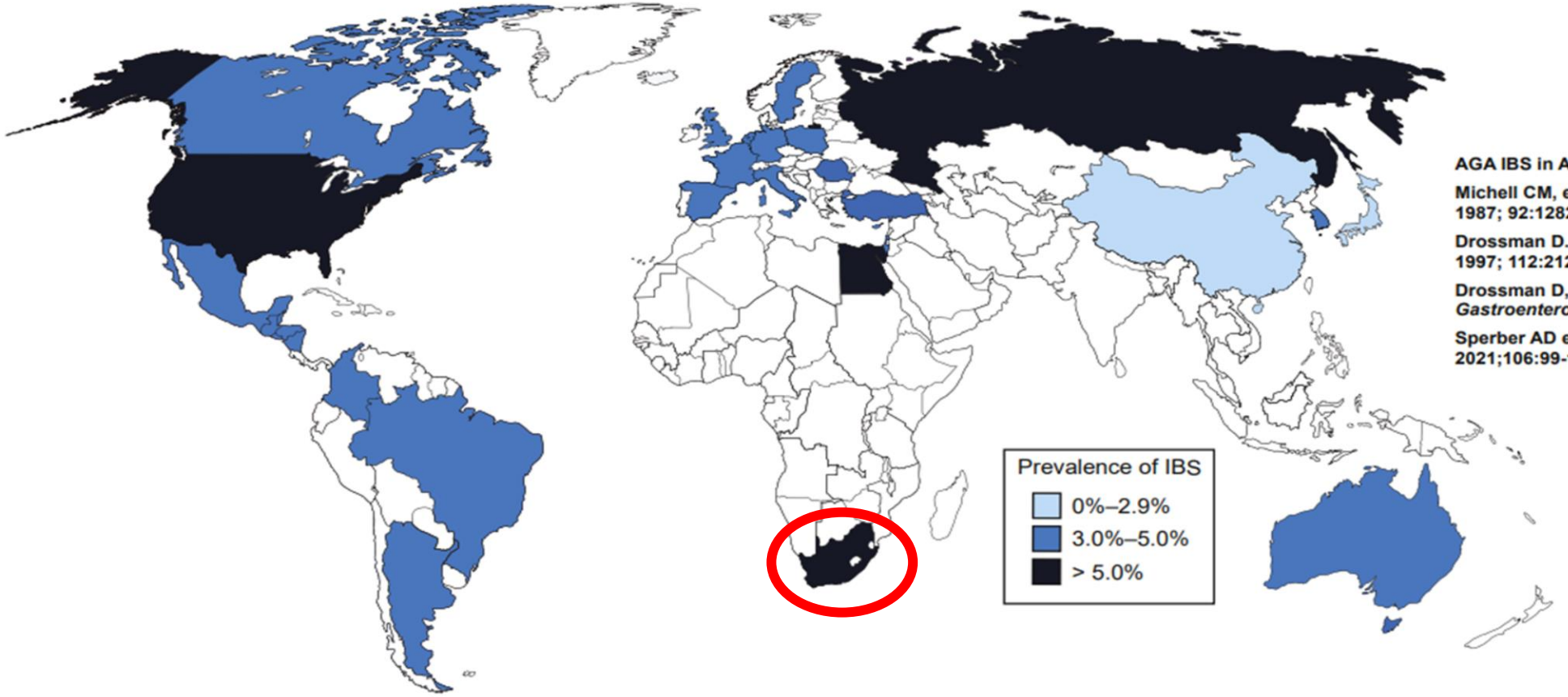
Prevalence of IBS

4%-11% Impacted worldwide • 7th most common diagnosis by primary care physicians
Three main types of irritable bowel syndrome (IBS) include:

IBS-C
IBS with constipation

IBS-M
IBS with mixed bowel habits

IBS-D
IBS with diarrhea



AGA IBS in American survey, 2015.

Michell CM, et al. *Gastroenterology*. 1987; 92:1282.

Drossman D. *Gastroenterology*. 1997; 112:2120.

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Sperber AD et al. *Gastroenterology*. 2021;106:99-114.

Gastroenterology 2022;163:153

ROME IV CRITERIA

- Recurrent abdominal pain on average at least 1 d/wk in the last 3 mo, associated with ≥ 2 of the following criteria:
  1. Related to defecation
  2. Δ frequency of stool
  3. Δ form (appearance) of stool

- Fulfilled for the last 3 mo with sx onset ≥6 mo before dx

Am J Gastroenterol 2021;116:17–44

ROME IV - ABSENCE ALARM FEATURES

1. Sx onset >50yrs – no prior CCa screen
2. Unintended LOW (>10% in 3 mo)
3. Recent Δ bowel habits
4. Nocturnal pain and passage stool
5. Unexplained IDA or Positive FOBT
6. FHx – IBD or CCa
7. OGITB
8. Fever ± Palpable LAD

JAMA. 2015;313(9):949-958

ROME III	ROME IV
Recurrent abdominal pain or discomfort at least 3 days/month	**Recurrent abdominal pain on average at least 1 day/week**
1. Improvement with defecation	**1. Related to defecation – "either improving or worsening"**
2. Onset associated with a change in frequency of stool	**2. Associated** with a change in frequency of stool
3. Onset associated with a change in form (appearance) of stool	**3. Associated** with a change in form (appearance) of stool

Am J Gastroenterol (2018) 113:1017–1025

Rome IV Impacts on Clinical Characteristics and Key Pathophysiological Factors

- Rome III (85%) fulfilled Rome IV
- Rome IV more likely:
  - Female
  - Poorer QOL
  - More Pain, Bloating, Fatigue & Rectal Sensitivity
- Equivalence - Severity of Anxiety or Depression
  - IBS subtypes
  - Bowel habit dissatisfaction or oro-anal transit time
- No. pain days ∝ Sx's & Visceral Hypersensitivity.

Am J Gastroenterol (2018) 113:1017–1025

CLASSIFICATION - IBS SUBTYPES

Type 1

Separate hard lumps, like nuts (hard to pass)

Type 2

Sausage-shaped but lumpy

Type 3

Like a sausage but with cracks on its surface

Type 4

Like a sausage or snake, smooth and soft

Type 5

Soft blobs with clear-cut edges (passed easily)

Type 6

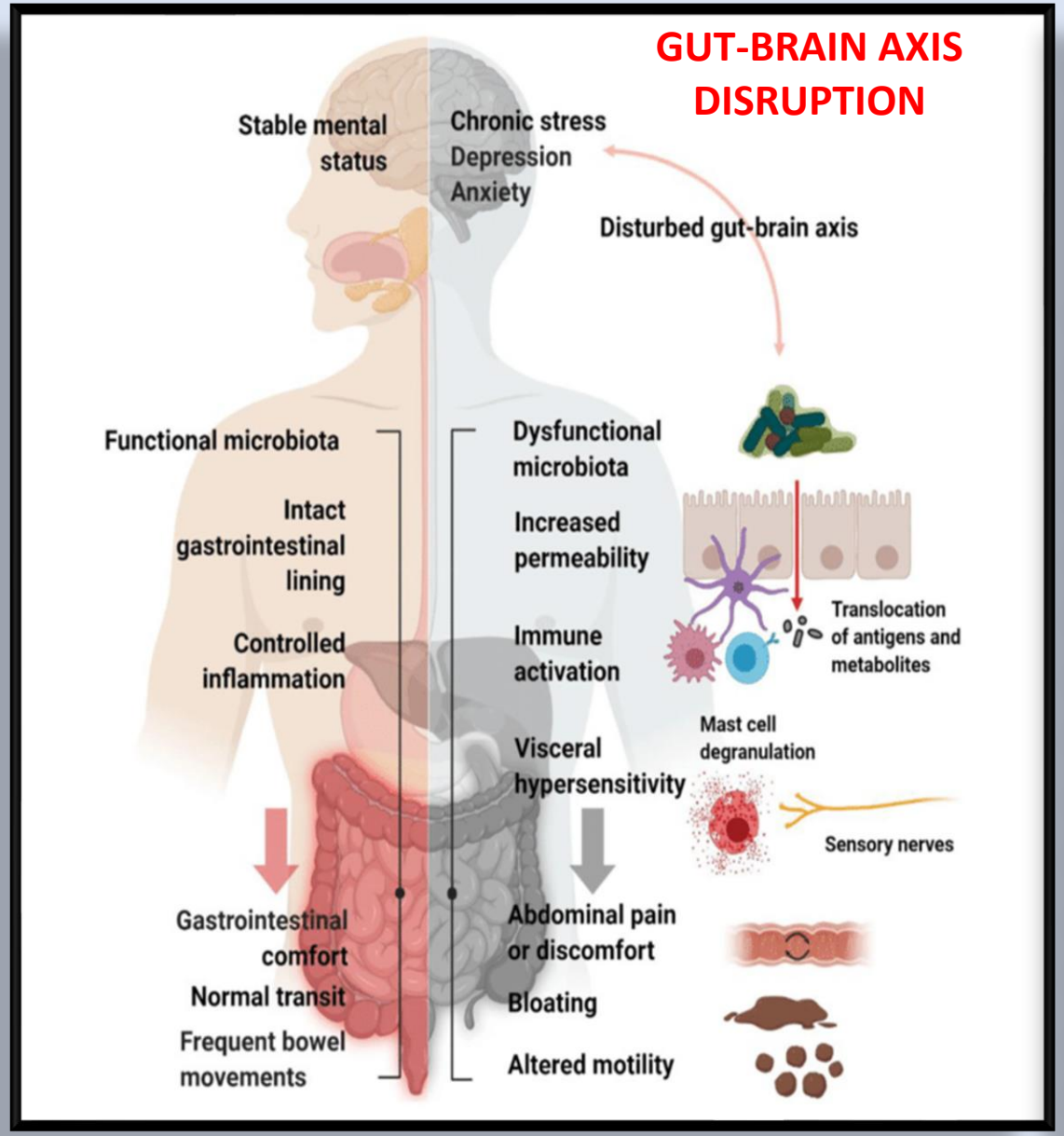
Fluffy pieces with ragged edges; a mushy stool

Type 7

Watery, no solid pieces; entirely liquid

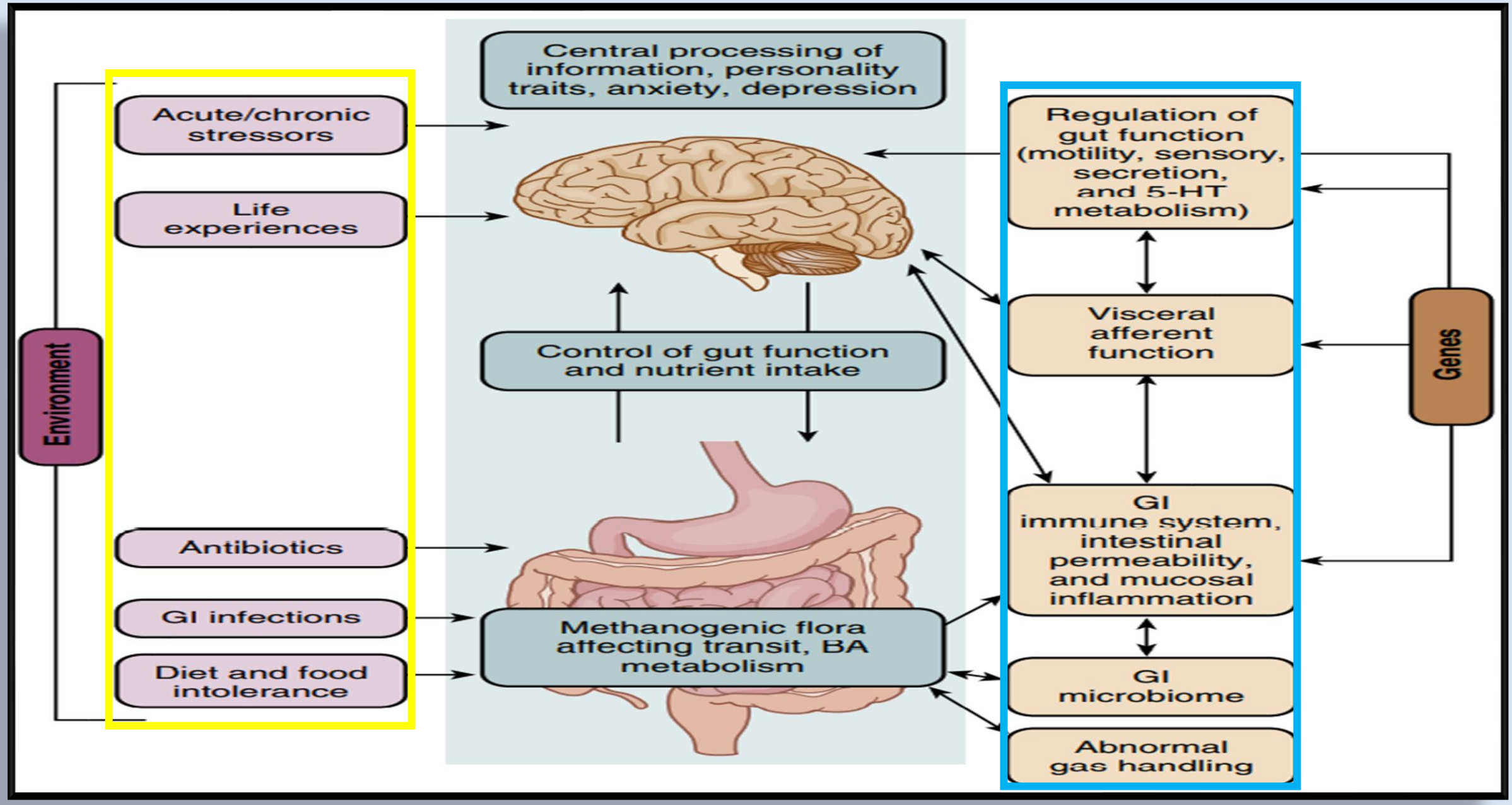
IBS-C	IBS-M	IBS-D
Hard/lumpy stools ≥ 25% Loose/watery stools < 25%	Hard/lumpy stools ≥ 25% Loose/watery stools ≥ 25%	Hard/lumpy stools < 25% Loose/watery stools ≥ 25%

Gastroenterology 2016; 150:1393-407



- Dysregulated Gut Motility
- Visceral Hypersensitivity
- LG mucosal inflammation
- Post infectious
- Microbiomes
- Food sensitivity
- Genetics
- Psychosocial dysfunction

Front. Cell. Infect. Microbiol;2020 10:468

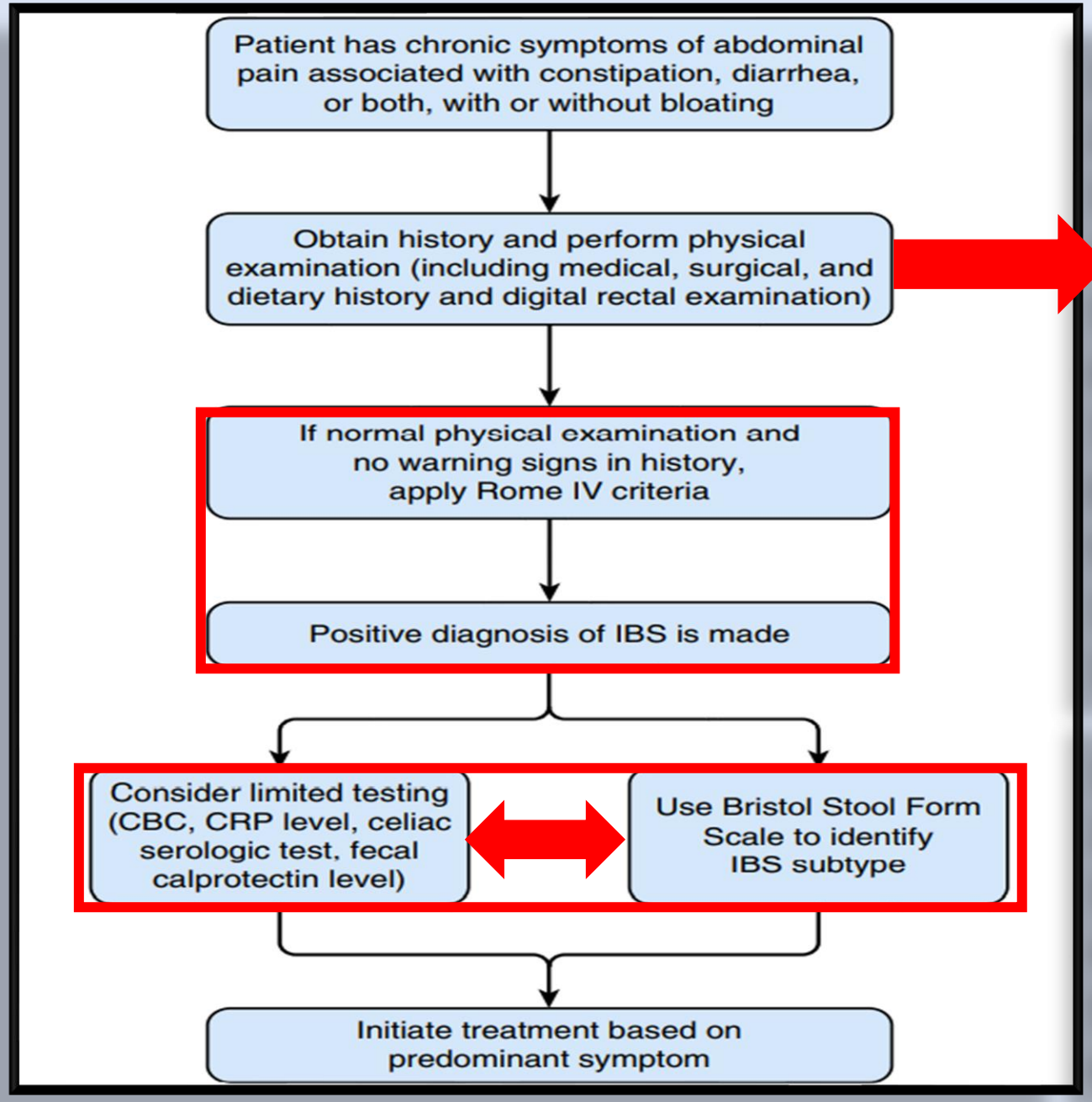


Lancet Gastroenterol Hepatol 2016; 1:133-46

ESTABLISHED RISK FACTORS

- Age 60
- Female
- Smoking Hx
- Adverse life events – Sexual abuse (16.5% vs 6.7%)
- Depression
- Hypochondriasis
- Post infectious
  - Prolonged Initial Illness
  - Lymphocytosis
  - COVID-19 – Infectious agent and stressor

Neurogastroenterology Motility 2012; 18:258-68.



1. Hematochezia
2. Chronic diarrhea
3. Family Hx of Cca, IBD or CD
4. Fever
5. Nocturnal Sx (awakening sleep)
6. Onset >50 yrs
7. Progressive dysphagia
8. Recurrent vomiting
9. Short Hx
10. Travel Hx – Giardia
11. LOW

1. Mass
2. Arthritis (active)
3. DH or PG
4. Blood/mass - DRE
5. Anemia/Malabsorption
6. Thyroid Dx

Gastroenterology 2002; 122:1701-14

DIAGNOSTIC GUIDELINES

1. **Positive Dx vs Exclusion strategy**
   - ➢ **Timeous initiation Tx**

2. **CD serologic testing - IBS-D (2.6-3.3%)**
   - ➢ **Consequences of Missed Dx**
   - ➢ **tTGA & IgA level – if EGD 6 bx - duodenum plus bulb**

3. **FCP or FL plus CRP – IBS-D without alarm features to r/o IBD**
   - ➢ **FCP<50µg/g and CRP<5mg/L - NPV of 92–100% and PPV 80–87%**

4. **No routine stool testing for enteric pathogens**
   - ➢ **High pretest probability and definite risk factors for Giardia exposure**

Am J Gastroenterol 2021;116:17–44.

DIAGNOSTIC GUIDELINES

4. **No routine colonoscopy**
   - **<45 yrs without warning signs**
   - **If performed – obtain Bx if IBS-D**

5. **Accurate IBS subtyping improves Tx.**

6. **No testing for food allergies/sensitivities**
   - **Unless - reproducible symptoms concerning for a food allergy**

7. **Anorectal physiology testing - Pelvic Floor D/O and/or refractory constipation not responding to standard medical Tx**

Am J Gastroenterol 2021;116:17–44.

PELVIC FLOOR DYSFUNCTION

Rectal Inspection

- Dermatitis/perianal erythema
- Rectal prolapse
- Gaping anus
- Hemorrhoids
- Fistula or fissure
- Rectal scar
- Anorectal mass

DRE findings

- Impaired sensory perception of stool
- Rectal distension and stool impaction
- Diaphragm/Abdomen/rectum during push maneuvers
- Abnormal relaxation of EAS and puborectalis muscles

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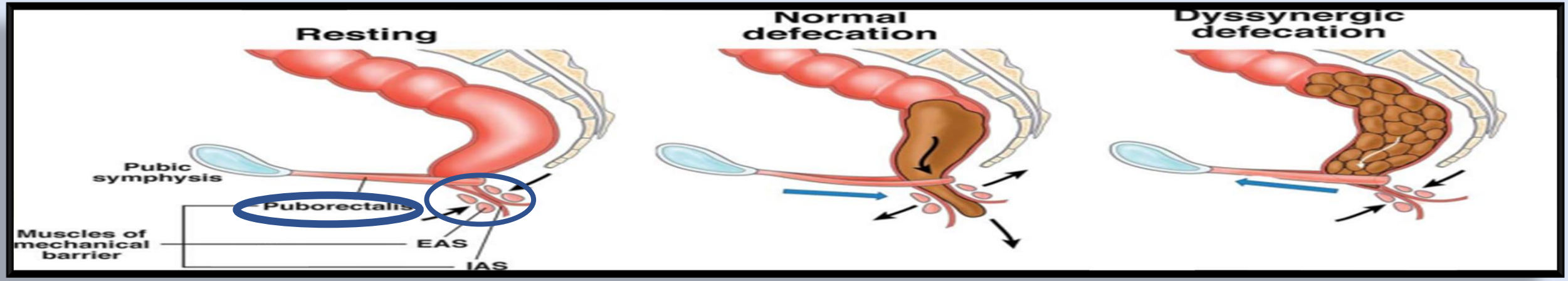
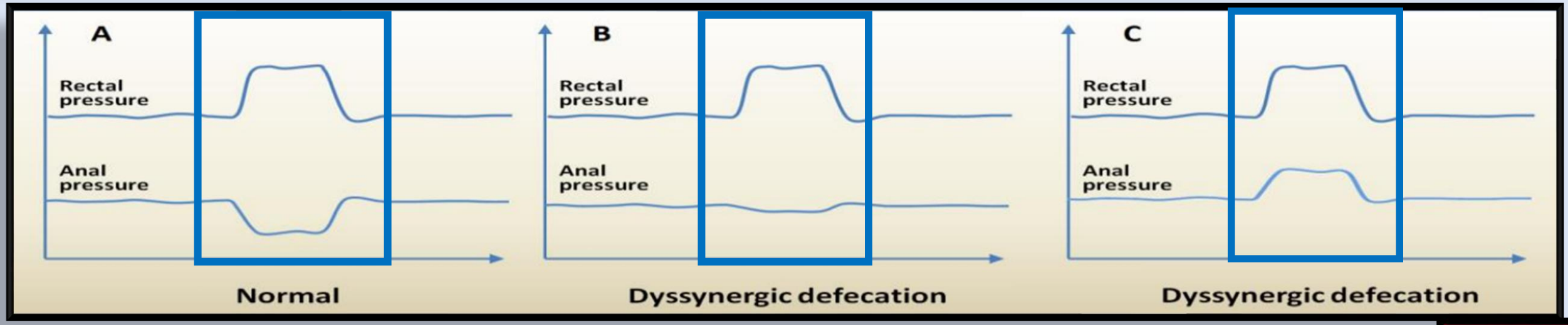
ANORECTAL MANOMETRIC ASSESSMENT





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DIAGNOSTIC ALGORITHM

1. Sx's suggestive of IBS
2. Medical Hx and P/E
3. Alarm fx - Patient-specific investigations
4. Limited Screening - FBC, CRP, FCP and Celiac serologies
5. Abnormality – pursue and mx
6. No abnormality – ROME IV IBS criteria met
7. IBS-subtype - Bristol SFS

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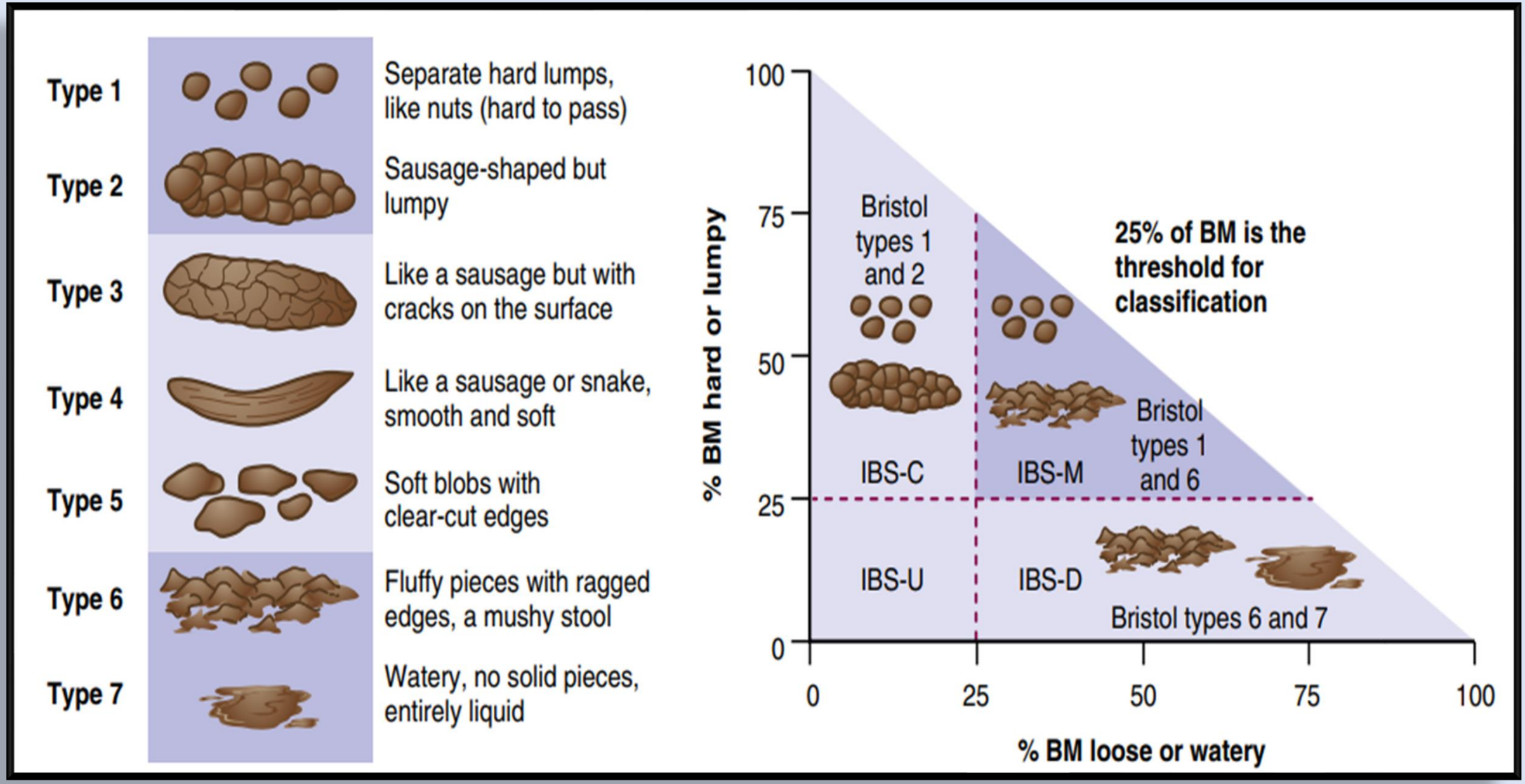


Gastroenterology 2016; 150:1393-407

INITIAL MANAGEMENT

1. **Provider-Patient Relationship**
   - Physician negativity = Poor Outcomes
   - Why now? What has changed?

2. **Education and reassurance**
   - What are your fears?

3. **Life-style modifications**
   - Exercise, Sleep, Stress Reduction

4. **Dietary modifications (fiber, low FODMAP)**

5. **Pharmacological Tx – Predominant Sx**

Aliment Pharmacol Ther. 2021;54(Suppl. 1):S63–S74

ACG 2021-RECOMMENDATIONS

1. **Trial of a low FODMAP diet - GIBS**
   - **Bloating and pain**

2. **Soluble fiber - GIBS**
   - **Psyllium/ispaghula husk**

3. **Against antispasmodic – GIBS**
   - **No clinically significant benefit**

4. **Peppermint oil to provide relief of GIBS**
   - **CCB – abdominal pain (EC preps) – reduce GERD**

5. **Against probiotics - GIBS**

ACG 2021-RECOMMENDATIONS

6. ClChannel activators - GIBS-C
   - Lubiprostone – LA PGE1 analog

7. Against PEG products - GIBS

8. GC activators - GIBS-C
   - Linaclatide

9. Tegaserod (5-HT4 agonist) - IBS-C
   - Women <65yrs - ≤1 CVR not responding to secretagogues

10. Against bile acid sequestrants - GIBS-D
    - Subset BAM – Clinicians discretion

ACG 2021-RECOMMENDATIONS

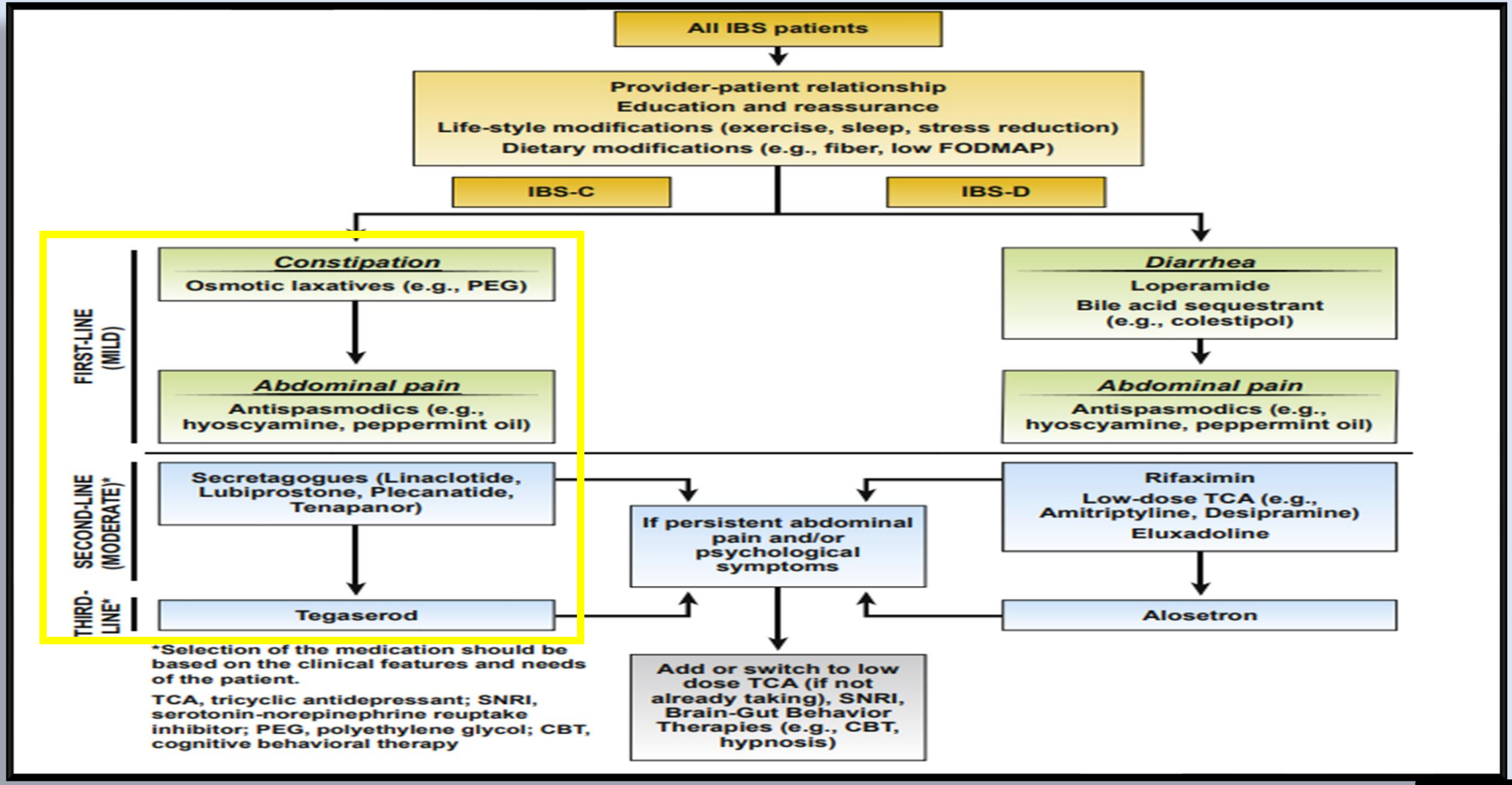
11. **Rifaximin - GIBS-D**
    - 2wk (40.8%) - Pain and Stool consistency

12. **Alosetron - GIBS-D**
    - Women with Severe Sx - Failed Conventional Tx

13. **TCAs - GIBS**
    - Anticholinergic – Abdominal pain

14. **Gut-Directed PsychoTx - GIBS**
    - CBT & GD Hypnotx – Cognition and Affect

15. **Against FMT - GIBS**
    - Paucity of evidence



Gastroenterology 2022;163:153

IBS-C PREDOMINANT

1st line (Mild)

1. PEG – constipation and straining Not pain
2. Soluble fiber – (psyllium/ispaghula husk)

2nd line – (Moderate) – no response to 1st line Tx

SECRETALOGUES

1. Lubiprostone – Cl channel activator – 8mcg BD
   - Increasing intestinal fluid secretion
   - Nausea (30% - dose dependent); Diarrhea (10%), Headache (7%)

2. Linaclotide – Guanylate Cyclase C agonist – 290mg OD
   - Increasing intestinal fluid secretion
   - Diarrhea (15%)

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IBS-C PREDOMINANT

3. Plecanatide - Guanylate Cyclase C agonist – 3mg OD
4. Tenapanor - locally acting inhibitor - NHE3 – 50mg BD
   - ➢Inhibits Na-H2O absorption in SI and colon – increasing secretion and intestinal transit
   - ➢Diarrhea (15%) may be severe (2.5%)

3RD LINE – Tegaserod - 5-HT4 receptor agonist

- ➢Initiates the peristaltic reflex and accelerates GI transit
- ➢Withdrawn – CV concerns – reinstituted
  1. Tx women with IBS-C <65 yrs
  2. No prior Hx IHD
  3. ≤1 risk factor for CVD

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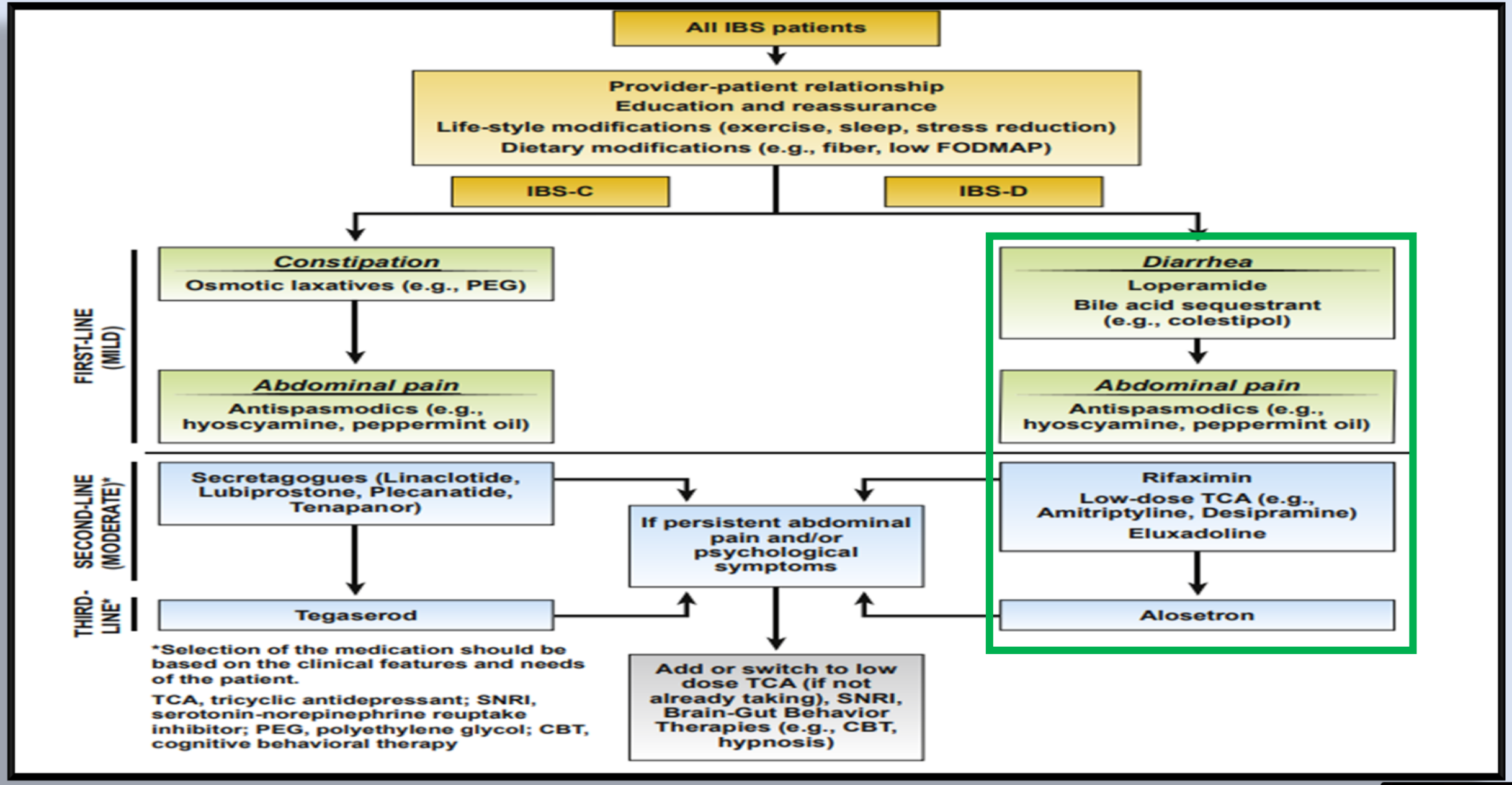


Gastroenterology 2022;163:153

IBS-D PREDOMINANT

1. **Loperamide - μ-opioid receptor agonist – 2-16 mg/day**
   - Most effective - prophylactically
   - No effect - abdominal pain/bloating - caution in elderly – RDS

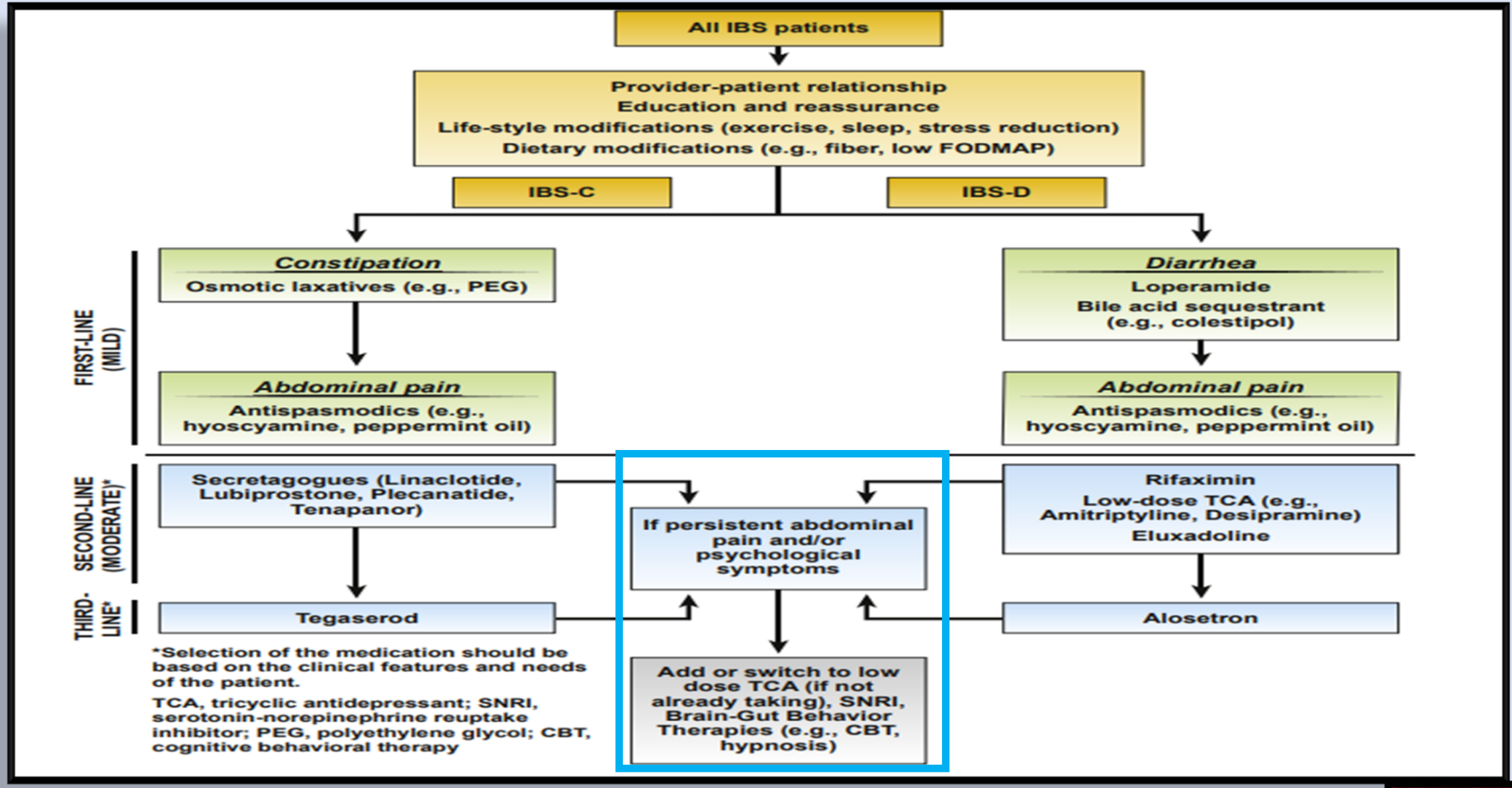
2. **Bile acid sequestrants - Cholestryramine 9g BD or colestiopol 2g BD**
   - BAM - Inability to reabsorb sufficient BA's TI.
   - Biomarkers – FGF-19 and C4 levels (in absence SeHCAT)

3. **Rifaximin – 550mg TDS 10-14 days**
   - Non-absorbable ab – Global sx's and bloating
   - 2wk - pain and stool consistency (40.8%)

IBS-D PREDOMINANT

4. **Eluxadoline - Mixed opioid receptor modulator – 100mg BD (27.8%)**
   - C/I:
     1. Previous cholecystectomy - severe acute pancreatitis (0.4%) SOD spasm
     2. Hx of SOD, pancreatitis, alcohol abuse and alcohol disuse D/O (>3 drinks/day)

5. **Alosetron - 5HT-3 receptor antagonist– 0.5-1mg BD**
   - Women with severe IBS-D
   - Withdrawn - life threatening ischemic colitis and severe constipation.
   - Ramosteron and ondansetron alternatives



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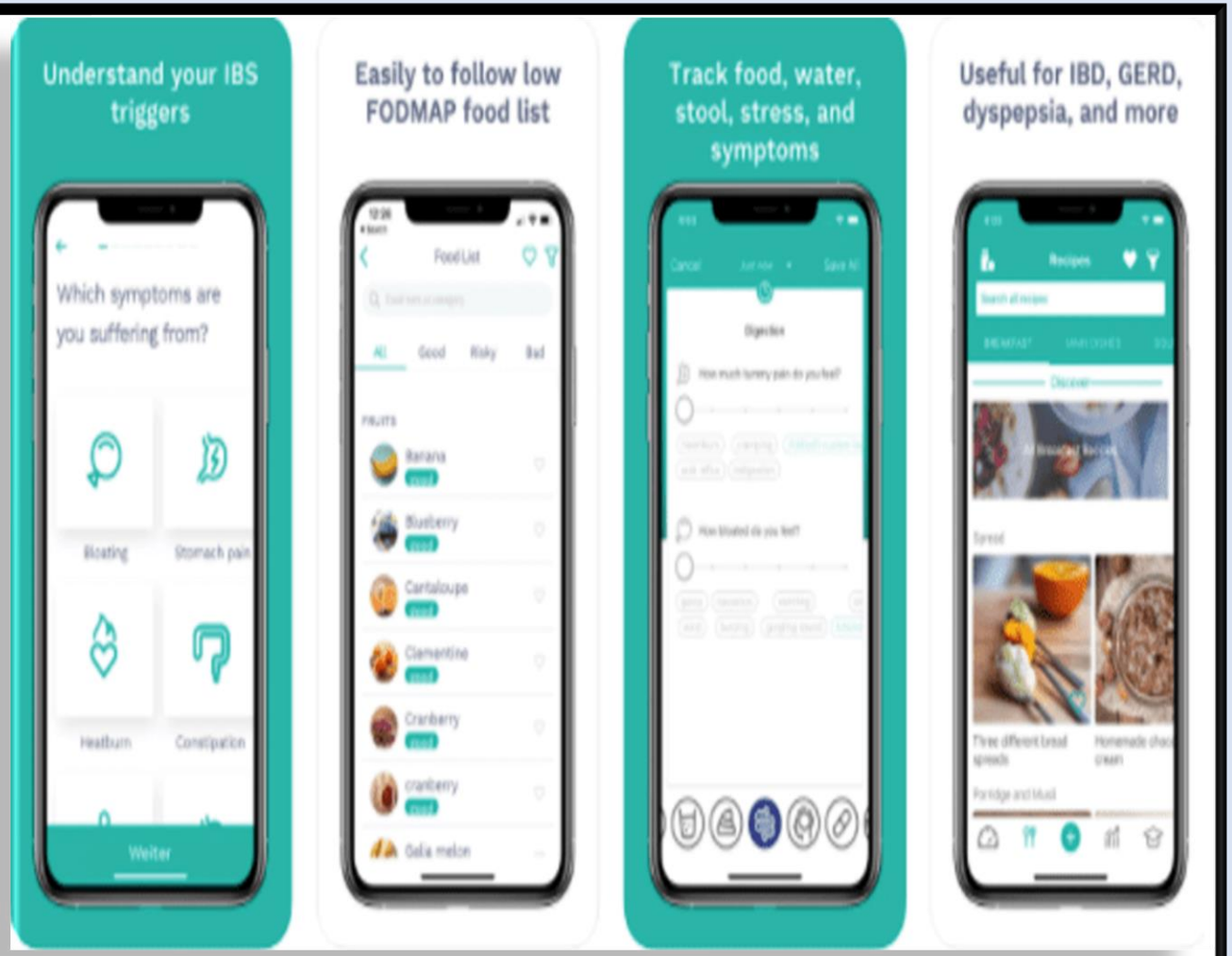
TREATMENT OF ABDOMINAL PAIN

Class	Medication	Starting dose	Maximum dose
TCA	Amitriptyline	10-25 mg /day at bedtime	150 mg /day
	Imipramine	10-25 mg/ day at bedtime	150 mg /day
	Desipramine	10-25 mg /day at bedtime	200 mg /day
	Nortriptyline	10-25 mg /day at bedtime	150 mg /day
SSRI	Escitalopram	10 mg /day	20 mg /day
	Citalopram	20 mg /day	60 mg /day
	Fluoxetine	20 mg /day	80 mg /day
	Sertraline	25-50 mg /day	200 mg /day
	Paroxetine	10 mg/day	60 mg/day
Antispasmodics	Hyoscyamine	0.125-0.25 mg every 4-6 hours	1.5 mg /day
	Dicyclomine	10 mg t.i.d.	160 mg /day
	Peppermint oil	250 b.i.d. or t.i.d.	750 mg TID

NON-PHARMACOLOGICAL OPTIONS

1. Soluble fiber
2. Low FODMAP (6-8 WK TRIAL)
3. CBTx – SMART PHONE apps
4. Exercise
5. ?Probiotics



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TAKE HOME MESSAGE

1. DEBILITATING
2. EXCELLENT CLINICIAN-PATIENT RELATIONSHIP
3. THOROUGH Hx & PE
4. POSITIVE-LIMITED Dx STRATEGY
5. SUBTYPING – FACILITATES Mx
6. MDT APPROACH
7. LOWEST EFFECTIVE DOSE – AVOID POLYPHARMACY