Top 10 GI POEMs 2020-21

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Objectives

- Describe and use the principles of “Information Mastery,” including relevance, validity and usefulness of information.
- Define patient oriented evidence that matters (POEMs)
- Know the top 10 GI POEMs for 2020-21 that apply to primary care endoscopists.
- Develop an approach for reviewing medical literature that is based on identifying POEMs as they are published.

https://www.menti.com/8wknn1f5ov

POEM

Patient-Oriented Evidence that Matters

matters to the clinician, because if valid, will *require* a *change* in practice

Shaughnessy AF, Slawson DC, Bennett JH. Becoming an Information Master: A Guidebook to the Medical Information Jungle. The Journal of Family Practice 1994;39(5):489-99.

Determining whether information is relevant and does it matter?

- Does it address an outcome people care about (Patient-oriented evidence)?
- Is the intervention feasible?
- If it is true, will it require you to change your practice?

Yes to all three –

Patient-Oriented Evidence that Matters

Relevance: Type of Evidence

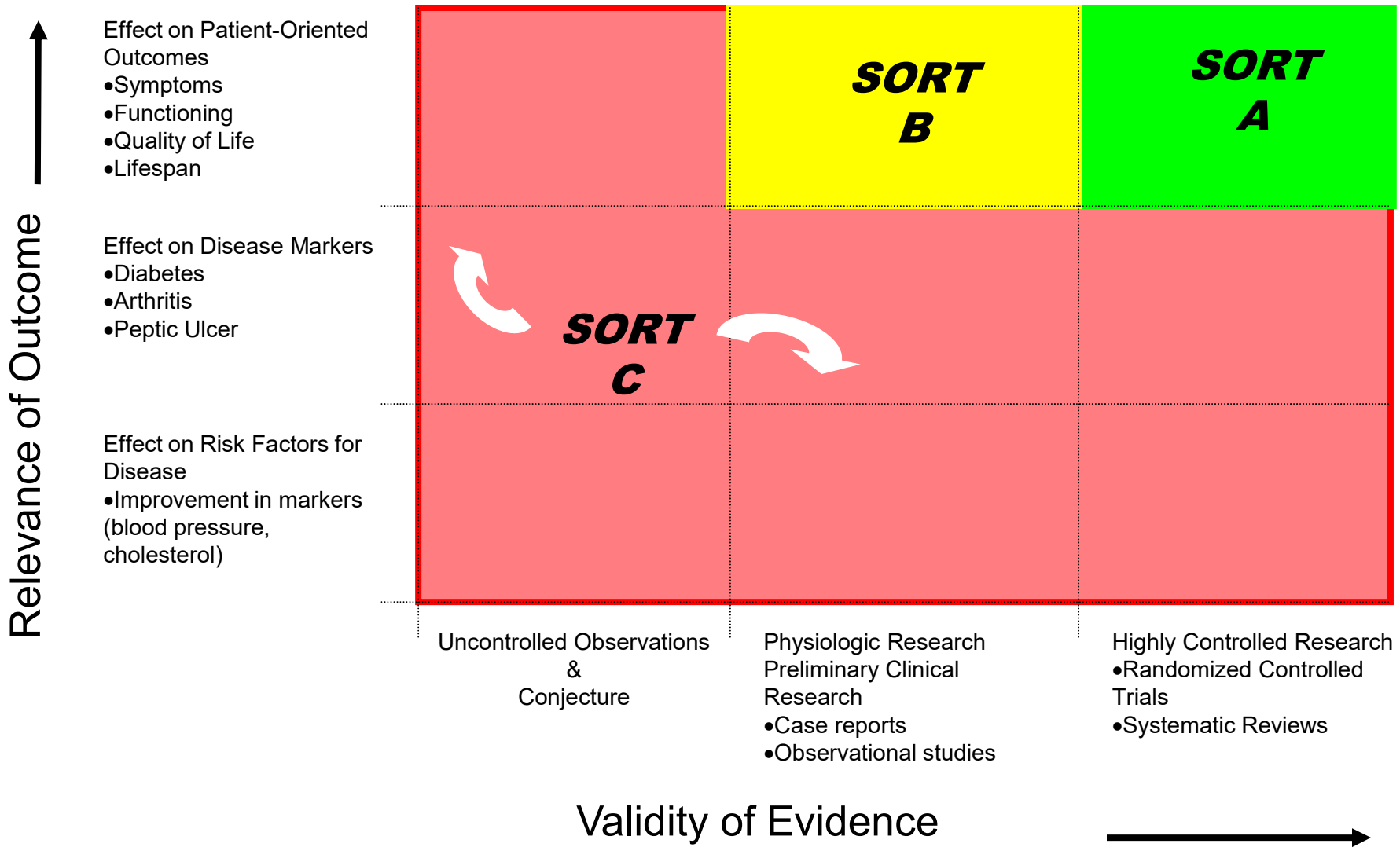
- **POE**: Patient-oriented evidence
  - mortality, morbidity, quality of life
  - Longer, better or both
- **DOE**: Disease-oriented evidence
  - pathophysiology, pharmacology, etiology

Determining Validity

- Levels of Evidence (LOE):
  - 1a, b, c; 2a, b, c; etc., 5- expert opinion
  - A, B, C, D
  - SORT Criteria
  - Therapy, diagnosis, prognosis, reviews, etc.

Oxford Centre for Evidence-based Medicine Levels of Evidence (May 2001)

Level	Therapy/Prevention, Aetiology/Harm	Prognosis	Diagnosis	Differential diagnosis/symptom prevalence study	Economic and decision analyses
1a	SR (with homogeneity*) of RCTs	SR (with homogeneity*) of inception cohort studies; CDR† validated in different populations	SR (with homogeneity*) of Level 1 diagnostic studies; CDR† with 1b studies from different clinical centres	SR (with homogeneity*) of prospective cohort studies	SR (with homogeneity*) of Level 1 economic studies
1b	Individual RCT (with narrow Confidence Interval‡)	Individual inception cohort study with ≥ 80% follow-up; CDR† validated in a single population	Validating** cohort study with good††† reference standards; or CDR† tested within one clinical centre	Prospective cohort study with good follow-up****	Analysis based on clinically sensible costs or alternatives; systematic review (s) of the evidence; and including multi-way sensitivity analyses
1c	All or none§	All or none case-series	Absolute SpPins and SnNouts††	All or none case-series	Absolute better-value or worse-value analyses ††††
2a	SR (with homogeneity*) of cohort studies	SR (with homogeneity*) of either retrospective cohort studies or untreated control groups in RCTs	SR (with homogeneity*) of Level >2 diagnostic studies	SR (with homogeneity*) of 2b and better studies	SR (with homogeneity*) of Level >2 economic studies
2b	Individual cohort study (including low quality RCT; e.g., <80% follow-up)	Retrospective cohort study or follow-up of untreated control patients in an RCT; Derivation of CDR† or validated on split-sample§§§ only	Exploratory** cohort study with good†††reference standards; CDR† after derivation, or validated only on split-sample§§§ or databases	Retrospective cohort study, or poor follow-up	Analysis based on clinically sensible costs or alternatives; limited review(s) of the evidence, or single studies; and including multi-way sensitivity analyses
2c	"Outcomes" Research; Ecological studies	"Outcomes" Research		Ecological studies	Audit or outcomes research
3a	SR (with homogeneity*) of case-control studies		SR (with homogeneity*) of 3b and better studies	SR (with homogeneity*) of 3b and better studies	SR (with homogeneity*) of 3b and better studies
3b	Individual Case-Control Study		Non-consecutive study; or without consistently applied reference standards	Non-consecutive cohort study, or very limited population	Analysis based on limited alternatives or costs, poor quality estimates of data, but including sensitivity analyses incorporating clinically sensible variations.
4	Case-series (and poor quality cohort and case-control studies§§)	Case-series (and poor quality prognostic cohort studies***)	Case-control study, poor or non-independent reference standard	Case-series or superseded reference standards	Analysis with no sensitivity analysis
5	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"	Expert opinion without explicit critical appraisal, or based on economic theory or "first principles"


Relevance of Outcome
Effect on Patient-Oriented Outcomes
•Symptoms
•Functioning
•Quality of Life
•Lifespan
Effect on Disease Markers
•Diabetes
•Arthritis
•Peptic Ulcer
Effect on Risk Factors for Disease
•Improvement in markers (blood pressure, cholesterol)
SORT B
SORT A
SORT C
Uncontrolled Observations & Conjecture
Physiologic Research
Preliminary Clinical Research
•Case reports
•Observational studies
Highly Controlled Research
•Randomized Controlled Trials
•Systematic Reviews
Validity of Evidence

"It ain't what you don't know that gets you into trouble, it's what you know for sure that just ain't so."

Mark Twain

Finding the POEMS

- Reviewed all Essential Evidence Plus (http://www.essentialevidenceplus.com/) daily updates from Nov. 2020-Oct. 2021 identifying studies that are relevant to primary care endoscopists.
  - EE+ reviews over 100 journals each month including JAMA, BMJ, Lancet, NEJM, ER, Surgery, Psychiatry, Dermatology, Urology and Family Medicine journals
  - Also reviews Cochrane library
- Pubmed clinical queries from Nov. 2020-Oct 2021, with keywords: “colonoscopy technique,” “screening colonoscopy.”

https://www.menti.com/8wknn1f5ov

What is your clinic or health system's current definition of adequate colorectal cancer screening?

#1 USPSTF CRC Screening Guideline Recommends Lowering Age for First Screening to 45 (B Recommendation)

BOTTOM LINE

- In this updated 2021 review, the US Preventive Services Task Force (USPSTF) continues to recommend screening for colorectal cancer in average risk, asymptomatic adults aged 50 years to 75 years (A recommendation). The task force now extends that recommendation to include adults aged 45 years to 49 years (B recommendation). (LOE = 2c)

US Preventive Services Task Force, Davidson KW, Barry MJ, et al. Screening for colorectal cancer. US Preventive Services Task Force recommendation statement. JAMA 2021;325(19):1965-1977.

- In this updated review, the USPSTF found 33 studies on the effectiveness of screening versus no screening and found a significant decrease in the risk of colorectal cancer mortality with screening.
- There is no evidence to favor a specific screening method, although combined stool DNA testing with fecal immunochemical testing (Cologuard) results in more false-positive results, more follow-up colonoscopies, higher overall screening costs, and more associated adverse events with no additional reduction in mortality (overuse alert!).

- Clinicians and their patients should consider a variety of factors (eg, different frequencies of screening, location of screening, pre-procedure bowel preparation, anesthesia, and cost) in deciding which test is best for each person.
- No screening modality has demonstrated a significant reduction in all-cause mortality.
- Serious harm can result from screening or follow-up colonoscopy, including bowel perforations, major bleeding, and premature mortality.
- The AAFP does not yet recommend screening before age 50 years

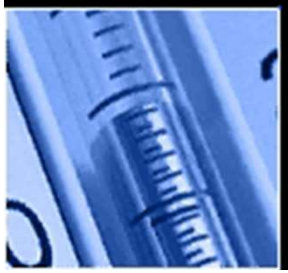
What is your current colonoscopy prep of choice?

#2 Low-volume same-day colonoscopy preparation is as effective as split-dose high-volume or low-volume preparations

Bottom line

In adults undergoing colonoscopy, a low-volume same-day polyethylene glycol–based bowel preparation was as effective as either a low-volume or high-volume split-dose preparation. (LOE = 2b)

Am J Gastroenterol 2020;115(12):2068-2076.



Study Highlights

WHAT IS KNOWN

- ✓ Bowel cleanliness has been shown to be superior with split-dosing vs nonsplit preparations.
- ✓ Same-day preparations are being increasingly used.
- ✓ Data on same-day preparations remain sparse and disparate.

WHAT IS NEW HERE

- ✓ Low-volume same-day PEG preparations resulted in clinically comparable bowel cleanliness compared with high-volume or low-volume split-dosing.
- ✓ A PEG same-day bowel preparation is safe and efficacious.
- ✓ Willingness to repeat and tolerability were superior with low-volume same-day PEG compared with high-volume PEG split-dosing and similar to low-volume PEG split-doses.

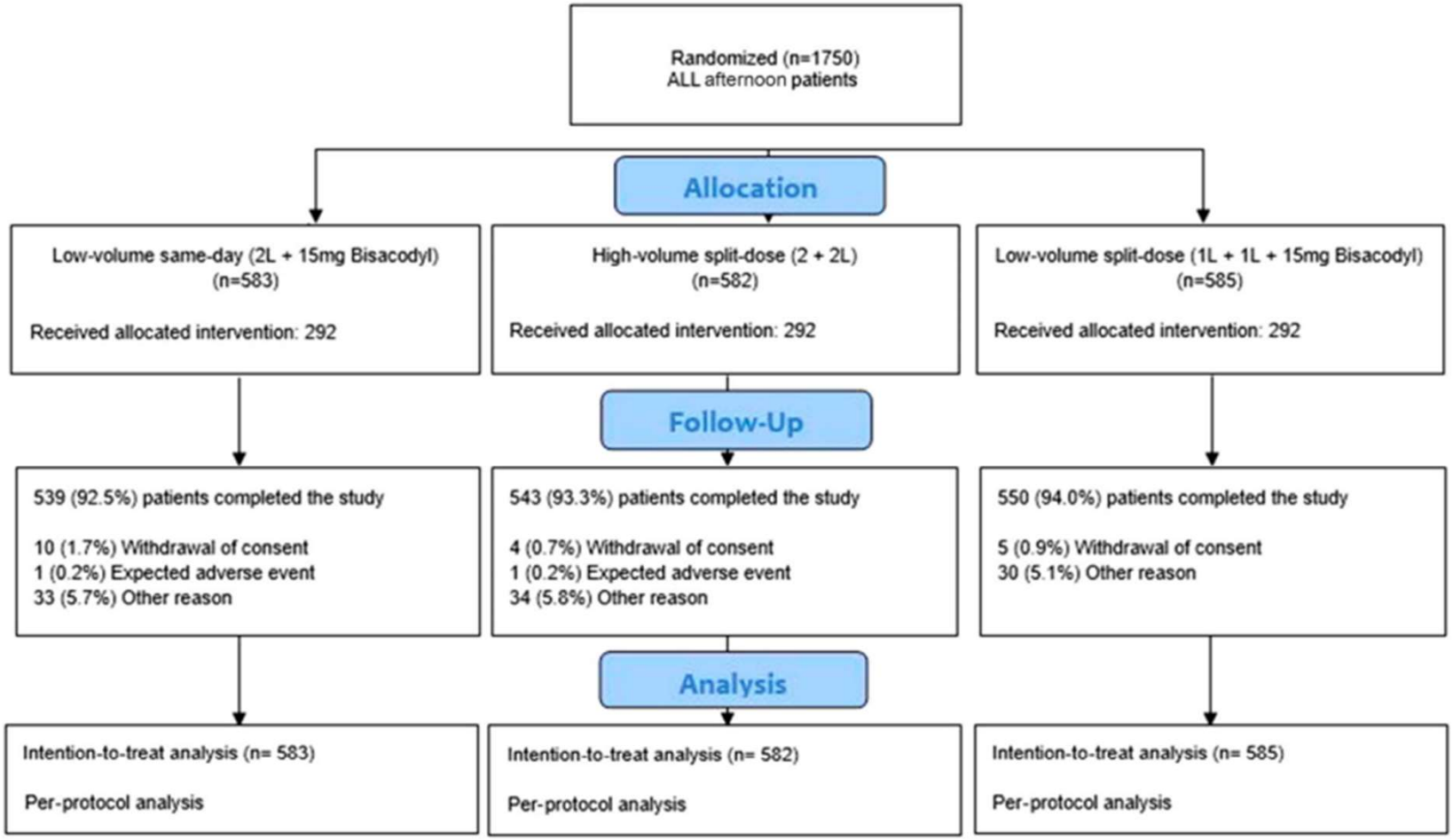


Figure 1. Flow diagram.

- The colonoscopists, masked to bowel preparation regimen, evaluated bowel cleanliness (using a standardized measure), procedure duration, polyp detection, and a variety of other outcomes.
- There was no overall difference in bowel cleanliness, need for repeat colonoscopy because of inadequate preparation, patient tolerance, procedure duration, polyp detection, and so forth, based on type of bowel preparation.

Table 2. Primary outcome, bowel preparation cleanliness

Variable	Low-volume same-day	High-volume split-dose	*P* value	Low-volume split-dose	*P* value	Combined high-/low-volume split-dose	*P* value
Primary outcome							
Adequate,[a] no. (%)	478 (90.5%)	495 (92.2%)	0.34	474 (87.9%)	0.17	969 (90.1%)	0.76
BBPS total score, mean (SD)	7.50 ± 1.70	7.44 ± 1.59	0.52	7.11 ± 1.78	<0.01	7.27 ± 1.69	0.01
BBPS score right, mean (SD)	2.45 ± 0.64	2.39 ± 0.62	0.12	2.30 ± 0.66	<0.01	2.34 ± 0.64	<0.01
BBPS score transverse, mean (SD)	2.56 ± 0.62	2.53 ± 0.60	0.51	2.43 ± 0.66	<0.01	2.48 ± 0.61	0.02
BBPS score left, mean (SD)	2.47 ± 0.68	2.52 ± 0.60	0.30	2.37 ± 0.70	<0.01	2.44 ± 0.66	0.36
Adequate ≥5, no. (%)	499 (94.5%)	517 (96.3%)	0.17	500 (92.8%)	0.24	1,017 (94.5%)	0.99
Adequate ≥7, no. (%)	379 (71.8%)	361 (67.2%)	0.11	337 (62.5%)	<0.01	698 (64.9%)	<0.01

BBPS, Boston Bowel Preparation Scale.
[a]Defined as a BBPS cutoff of ≥6 with all segment scores ≥2.

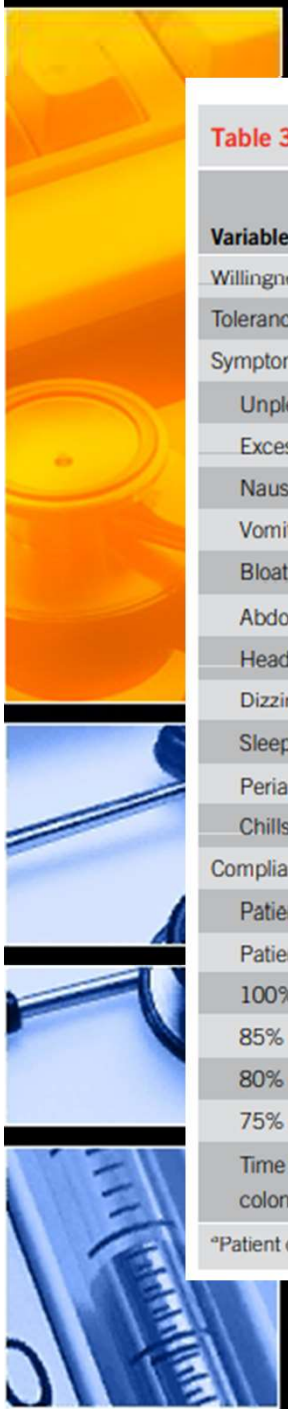


Table 3. Patient willingness to repeat, symptoms, and compliance

Variable	Low-volume same-day	High-volume split-dose	*P* value	Low-volume split-dose	*P* value	Combined high-/low-volume split-dose	*P* value
Willingness to repeat the preparation	445 (91.0%)	315 (68.9%)	<0.01	456 (92.5%)	0.40	771 (81.2%)	<0.01
Tolerance (scale of 1–10), mean ± std	8.1 ± 1.9	7.3 ± 2.3	<0.01	8.2 ± 1.9	0.65	7.7 ± 2.1	<0.01
Symptoms							
Unpleasant taste	159 (29.9%)	223 (42.0%)	<0.01	198 (36.7%)	0.02	421 (39.3%)	<0.01
Excessive thirst	39 (7.4%)	50 (9.4%)	0.23	32 (5.9%)	0.34	82 (7.7%)	0.85
Nausea	54 (10.2%)	72 (13.5%)	0.10	61 (11.3%)	0.56	133 (12.4%)	0.20
Vomiting	21 (4.0%)	27 (5.1%)	0.38	14 (2.6%)	0.21	41 (3.8%)	0.91
Bloating	51 (9.6%)	107 (20.2%)	<0.01	74 (13.8%)	0.04	181 (17.0%)	<0.01
Abdominal pain—cramp	48 (9.1%)	58 (10.9%)	0.32	46 (8.5%)	0.76	104 (9.7%)	0.68
Headache	69 (13.0%)	97 (18.2%)	0.02	70 (13.0%)	0.99	167 (15.6%)	0.17
Dizziness	8 (1.5%)	20 (3.8%)	0.02	23 (4.3%)	<0.01	43 (4.0%)	<0.01
Sleep disturbance	47 (8.9%)	61 (11.6%)	0.15	49 (9.1%)	0.89	110 (10.3%)	0.36
Perianal irritation	87 (16.5%)	100 (19.0%)	0.29	43 (8.0%)	<0.01	143 (13.5%)	0.11
Chills	105 (19.9%)	167 (31.5%)	<0.01	99 (18.4%)	0.53	266 (24.9%)	0.03
Compliance							
Patient took the assigned preparation	532 (98.2%)	539 (98.2%)	0.98	553 (99.3%)	0.10	1,092 (98.7%)	0.36
Patient respected the assigned diet	500 (93.8%)	515 (95.6%)	0.20	514 (94.3%)	0.73	1,029 (94.9%)	0.35
100% compliance[a]	472 (87.7%)	397 (73.8%)	<0.01	480 (86.3%)	0.49	877 (80.2%)	<0.01
85% compliance	499 (92.8%)	475 (88.3%)	0.01	533 (95.9%)	0.03	1,008 (92.1%)	0.66
80% compliance	503 (93.5%)	488 (90.7%)	0.09	537 (96.6%)	0.02	1,025 (93.7%)	0.88
75% compliance	521 (96.8%)	504 (93.7%)	0.02	541 (97.3%)	0.65	1,045 (95.5%)	0.20
Time to the end of the last dose to colonoscopy	3.8 ± 2.0	4.5 ± 2.2	<0.01	5.0 ± 2.1	<0.01	4.8 ± 2.2	<0.01

[a]Patient completed the liquid preparation.

What is the Ideal Length for Low-residue Diet for Colonoscopy prep?

Bottom Line

One-day LRD is non-inferior to three-day LRD for achieving an adequate colon cleansing before average risk screening colonoscopy and it is better tolerated.

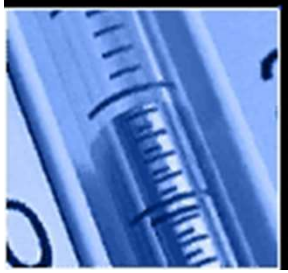
Dig Endosc. 2020 Oct 5. doi: 10.1111/den.13860. Online ahead of print.

Improving Colon Visualization Using Peppermint Oil

BOTTOM LINE

Our study suggests that topical peppermint oil reduces bowel wall spasticity, which could lead to better visualization of the bowel during screening colonoscopy. Although use of peppermint oil was associated with better ADRs, these results did not achieve statistical significance. Larger sample size and use of alternative methods of peppermint oil administration allowing for more absorption time may establish stronger results.

Gastroenterology Res. 2019 Jun;12(3):141-147. doi: 10.14740/gr1180. Epub 2019 Jun 7.




Bristol Stool Chart
Type 1
Type 2
Type 3
Type 4
Type 5
Type 6
Type 7
Entirely Liquid

•. 2021 Apr;145:106449.
•. 2021 Apr;145:106449.
•. 2021 Apr;145:106449.
•. 2021 Apr;145:106449.
•. 2021 Apr;145:106449.
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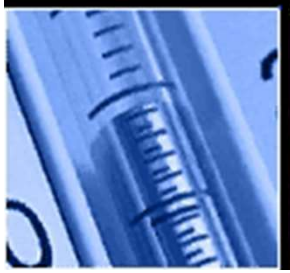
#3 Computer-tailored intervention increases CRC screening among low-income African Americans in primary care

BOTTOM LINE

A one-time computer-tailored intervention significantly improved CRC screening among low-income African American patients (OR=1.58, 1.05-2.37; p=.03)

LOE=1B



Prev Med. 2021 Apr;145:106449. doi: 10.1016/j.ypmed.2021.106449. Epub 2021 Feb 4.

- African American patients from 11 clinics who were not current with CRC screening were randomized to receive a computer-tailored intervention (n = 335) or a non-tailored brochure (n = 358) designed to promote adherence to CRC screening.
- Interventions were delivered in clinic immediately prior to a provider visit.

Table 2

CRC screening test completion by group unadjusted for covariates.

Test completed	Computer group (n = 335) n (%)	Brochure group (n = 358) n (%)	OR	95% CI	*p*-value
SBT	**42 (12.5)**	**26 (7.3)**	**1.83**	**1.11–3.03**	**0.0186**
Colonoscopy	62 (18.5)	50 (14.0)	1.40	0.89–2.19	0.1413
Any test	**88 (26.3)**	**66 (18.4)**	**1.58**	**1.05–2.37**	**0.0283**

Note. SBT = stool blood test.

How many of you are using prophylactic clips when biopsying large polyps?

When do you apply them?

#4 Prophylactic clip application significantly reduces postpolypectemy bleeding in polyps ≥ 10mm

BOTTOM LINE

Prophylactic clipping before resecting large pedunculated polyps can reduce overall post-polypectomy bleed (PPB) and immediate post-polypectomy bleed (IPPB) compared with no prior treatment. (LOE=1b)

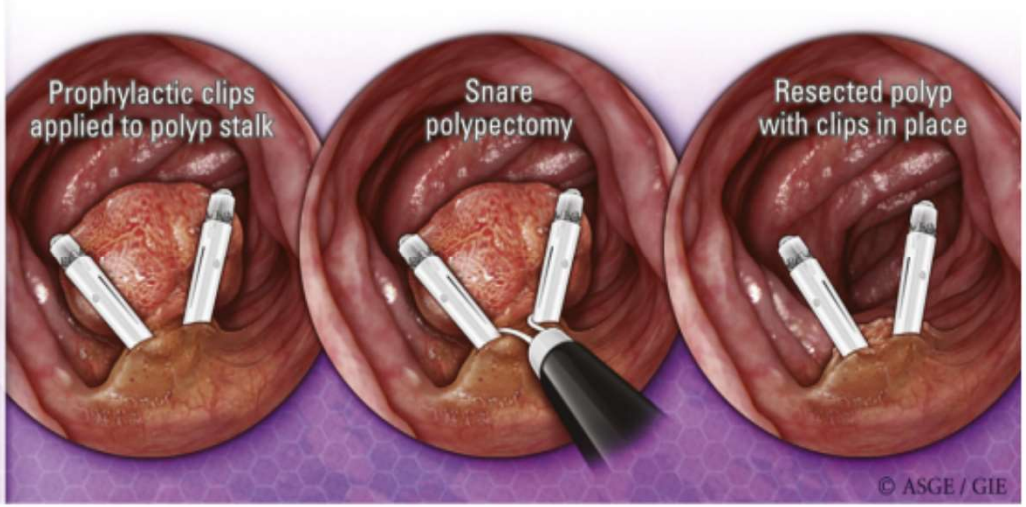
- Large pedunculated polyps (10 mm in head diameter) were eligible for inclusion.
- Polyps were randomized into a study arm (where clips were applied before resection) and a control arm (without pretreatment).
- The primary outcome was the rate of PPB in each group. PPB included immediate PPB (IPPB) and delayed PPB (DPPB).
- IPPB was defined as blood oozing (1 minute) or active spurting occurring immediately after polyp resection.
- DPPB was defined as rectal bleeding, occurring after completion of the colonoscopy

- 238 polyps from 204 patients were randomized into the clip arm (119 polyps) or the control arm (119 polyps).
- Overall bleeding adverse events were observed in 20 cases (IPPB, 16; DPPB, 4).
- The rate of overall PPB, IPPB, and DPPB was 8.4%, 6.7%, and 1.7%, respectively, for all polyps.

Outcomes of Snare Polypectomy

	Clip N=119	Control N=119	*P* value
Overall bleeding, n (%)	5 (4.2)	15 (12.6)	0.033*
Immediate bleeding, n (%)	3 (2.5)	13 (10.9)	0.017*
Grade 1, n (%)	1 (0.8)	7 (5.9)	0.066
Grade 2, n (%)	2 (1.7)	6 (5.0)	0.281
Delayed bleeding, n (%)	2 (1.6)	2 (1.6)	1.0000

* Statistically significant



How are you insufflating colon for colonoscopy?

#5 Water-aided techniques improve serrated polyp detection

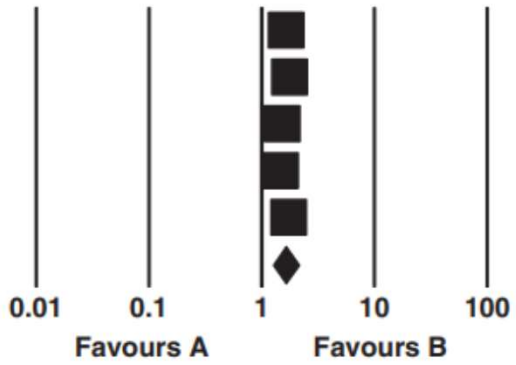
BOTTOM LINE

Serrated polyp detection rates are significantly higher in colonoscopies that are performed using water exchange and water immersion techniques (6.1% vs. 3.8%; RR, 1.63; 95% confidence interval, 1.24-2.13; P<.001)

J Clin Gastroenterol 2021;55:520–527.

- The following databases were queried for this systematic review: Medline, EMBASE, Cochrane Library, CINAHL, and Web of Sciences.
- The authors only included randomized controlled trials (RCTs).
- A total of 4 RCTs (5 arms) with 5306 patients (2571 in the gas-aided (GA group) and 2735 in the water-aided techniques (WT group) were included.
- The SPDR was significantly increased for the WT group compared with GA (6.1% vs. 3.8%; RR, 1.63; 95% confidence interval, 1.24-2.13; P

Study name	Statistics with study removed				
	Point	Lower limit	Upper limit	Z-Value	p-Value
Garborg 2015	1.645	1.168	2.318	2.845	0.004
Jia 2017	1.762	1.319	2.354	3.831	0.000
Leung (1) 2019	1.524	1.119	2.076	2.670	0.008
Leung (2) 2019	1.480	1.134	1.931	2.889	0.004
Lesne 2017	1.735	1.297	2.321	3.709	0.000
	1.626	1.244	2.127	3.554	0.000



Meta Analysis

FIGURE 3. Forest plot demonstrating leave-one-out meta-analysis for overall SPDR comparing GA and WT. A, GA; B, WT. CI indicates confidence interval; GA, gas-assisted colonoscopy; SPDR, serrated polyp detection rate; WT, water-aided technique.

#6 American College of Gastroenterology guideline on managing irritable bowel syndrome

BOTTOM LINE

The American College of Gastroenterology recommends that patients with suspected irritable bowel syndrome (IBS) undergo serologic testing (to rule out celiac disease) and selected additional testing based on the clinical circumstances. Additionally, they recommend a trial of a low FODMAP diet. Although they emphasize several new and expensive medications to treat symptoms, they also recommend using tricyclic antidepressants and recommend against using antispasmodic agents. (LOE = 5)

Am J Gastroenterol 2021;116(1):17-44.

- The American College of Gastroenterology convened a panel of "experts" (no explicit description of how they were selected or in which domains they were "expert"; many of whom declared conflicts of interest) who formulated 25 key statements that the guideline was to assess.
- Each statement was evaluated by a broad search of multiple databases and the Cochrane Clinical Trials register.
- Although the authors prioritized randomized trials with at least 10 participants that lasted at least 4 weeks, they used other study designs where appropriate.

- A trained methodologist helped assess the quality of the evidence for each of the 25 statements, a few of which are summarized as follows.
- Based on a meta-analysis of persons presenting with symptoms of IBS, which found that about 3% of these patients had positive test results for celiac disease, the panel strongly recommends serologic testing for celiac disease (eg, anti-endomysial antibodies, tissue transglutaminase antibodies).
- Additionally, in patients with alarm symptoms of inflammatory bowel disease, the panel strongly recommends testing with C-reactive protein or fecal calprotectin (moderate-quality evidence) or fecal lactoferrin (low-quality evidence).

- In the absence of alarm symptoms, the panel conditionally recommends against routine colonoscopy in those younger than 45 years.
- The consensus of the panel (ie, with no data to support) was to categorize patients with IBS into subgroups based on stool consistency.
- In the absence of a suggestive history, the consensus was against testing for food allergies or food intolerances.
- Additionally, the panel's consensus recommendation was to perform anorectal physiology testing in patients with symptoms or findings suggestive of pelvic floor disorders or in those with refractory constipation.

- Based on limited data, the panel made a conditional recommendation for an initial trial of a low fermentable oligosaccharides, disaccharides, monosaccharides, and polyols (FODMAP) diet.
- They also strongly recommend, based on a meta-analysis of 15 randomized trials, the use of soluble (but not insoluble) fiber to treat IBS symptoms.
- They conditionally recommend against the use of antispasmodics (limited data and lots of adverse effects), probiotics, polyethylene glycol, bile acid sequestrants, and fecal transplant.

- The panel conditionally recommended peppermint oil, but made strong recommendations for the use of tricyclic antidepressants, chloride channel activators (lubiprostone is the only one they mention; ~$300 US per month; red alert for possible conflict of interest), guanylate cyclase activators (linaclotide or plecanatide, each ~$500 US per month), and rifamaxin ($2800 US per month).
- The authors made a conditional recommendation for the use of mixed opioid agonists/antagonists (specifically, eluxadoline: $1400 US per month) and for gut-directed psychotherapy.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#7 Low-dose zinc (5 mg or 10 mg) is as good as 20 mg for childhood diarrhea

BOTTOM LINE

Lower doses of zinc (5 mg or 10 mg) provide a similar benefit and fewer harms than a 20-mg dose for children with diarrhea in low-resource countries. (LOE = 1b)

N Engl J Med 2020;383(13):1231-1241.

- Along with oral rehydration, 20 mg zinc once daily for 10 to 14 days is recommended for childhood diarrhea in low-resource countries to reduce stool volume and frequency, reduce the duration of diarrhea, increase weight gain, and replace zinc lost due to diarrhea.
- However, it also causes vomiting, which is of course counterproductive (number needed to treat to harm = approximately 20).
- These researchers in India and Tanzania identified young children, aged 6 months to 59 months, with acute watery diarrhea (3+ stools per day and less than 72 hours since onset) or acute dysentery (diarrhea with frank blood).

- Severely ill children were excluded, including those with severe malnutrition. They randomized 4500 children to receive 1 of 3 doses of zinc once daily: 5 mg, 10 mg, or 20 mg. There was no placebo group, as zinc 20 mg is considered an established effective therapy.
- Groups were balanced at the beginning of the study, and analysis was by intention to treat.
- The patients' mean age was 23 months, most had been sick for 25 hours to 48 hours, and only approximately 4% had dysentery.

- There was no difference among groups in diarrhea outcomes, but less vomiting over a 14-day period within 30 minutes of dosing with the lower doses: number needed to treat [NNT] = 18 for the 5-mg dose, and NNT = 27 for the 10-mg dose (compared with the 20-mg dose).

For hemodynamically stable GI bleeding, how often to you perform a CBC in hospitalized (non-ICU) patients

#8 More frequent hemoglobin monitoring is associated with more transfusions in patients with gastrointestinal bleeding

Bottom Line

In this single center study of patients hospitalized with acute gastrointestinal (GI) bleeding, having more frequent blood draws was associated with a higher rate of blood transfusions and a larger amount of blood transfused without affecting other outcomes such as length of stay, mortality, or readmission. The authors suggest that there may be an opportunity to reduce the amount of blood monitoring in this group of patients. (LOE = 2b)

Am J Med 2021;134(5):682-687.

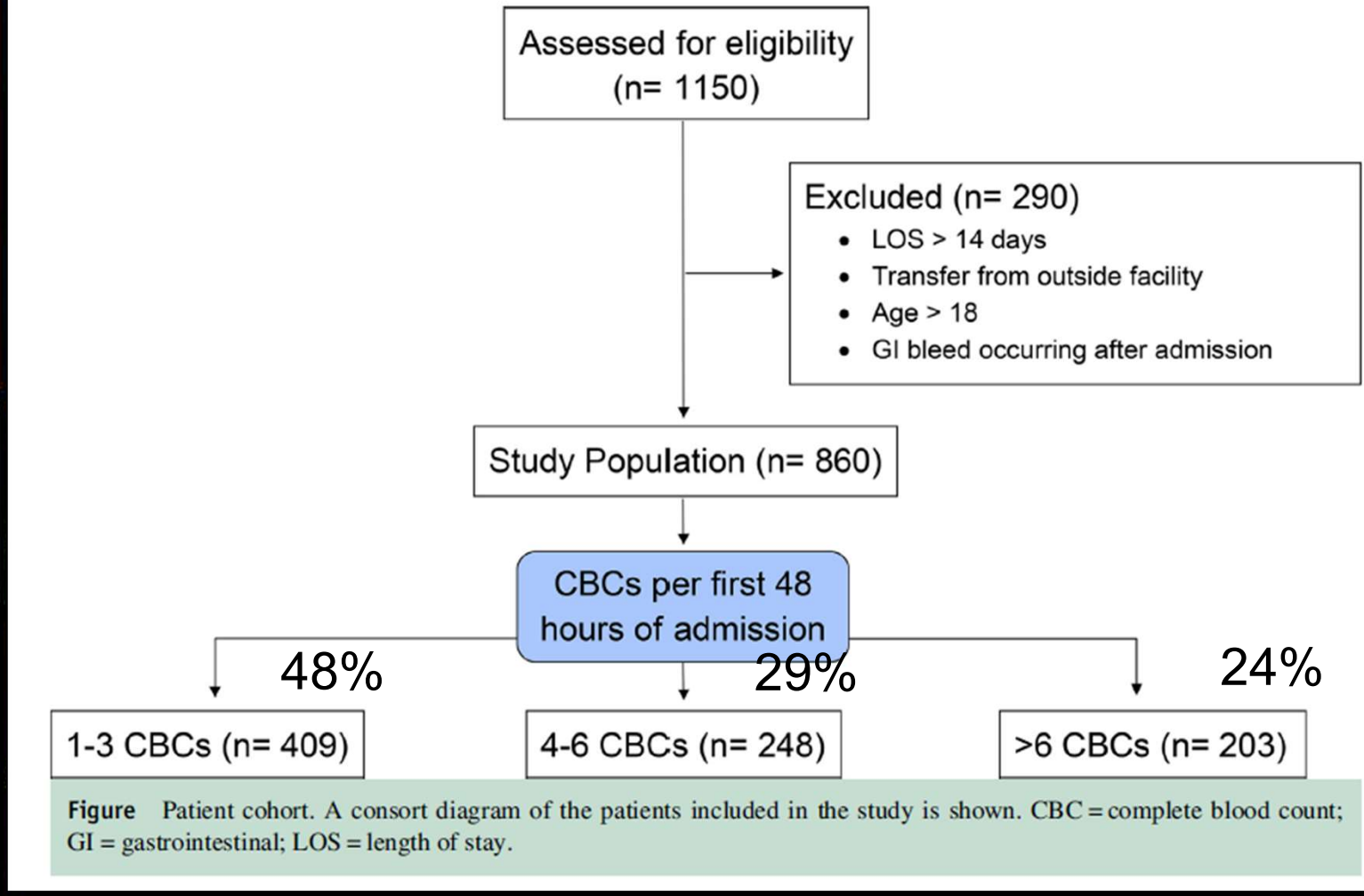


Figure Patient cohort. A consort diagram of the patients included in the study is shown. CBC = complete blood count; GI = gastrointestinal; LOS = length of stay.

Table 1 Clinical Features

Variables	n (%) or Mean (SD)
N = 860	
Age (years)	62 (16)
Gender (F)	385 (45%)
Race	
White	502 (58%)
Black	325 (38%)
Other	34 (4%)
CCI score	2 (2)
Cirrhosis	136 (16%)
Antiplatelet therapy	80 (9%)
Anticoagulation therapy	63 (7%)
Required ICU admission	249 (29%)
Systolic BP	119 (26)
Diastolic BP	69 (19)
HR	93 (19)
Hemoglobin	8.8 (1.9)
Hematocrit	44 (26)
Platelets	186 (80)
INR	1.3 (0.6)

BP = blood pressure; CCI = Charlson Comorbidity Index; F = female; HR = heart rate; ICU = intensive care unit; INR = international normalized ratio; SD = standard deviation.

Overall, 96% of patients underwent endoscopy.

Table 2 Endoscopic Findings*

Upper endoscopy	483 (56%)
Peptic ulcer disease	150 (31%)
Esophageal varices	87 (18%)
AVM	45 (9%)
Esophagitis	45 (9%)
Portal hypertensive gastropathy	18 (4%)
Gastritis	17 (4%)
Mass	8 (2%)
Other	40 (8%)
No lesion identified	73 (15%)
Lower endoscopy	209 (24%)
Hemorrhoids	73 (35%)
Diverticulosis	71 (34%)
Other	22 (11%)
No lesion identified	41 (20%)
Enteroscopy	61 (7%)
AVM	25 (41%)
No lesion identified	36 (59%)
Capsule endoscopy	61 (7%)
AVM	15 (25%)
Other	5 (8%)
No lesion identified	41 (67%)
No endoscopy	46 (6%)

*The lesion at endoscopy that demonstrated the putative culprit bleeding lesion is shown. No patient had 2 bleeding lesions identified. AVM = arteriovenous malformation.

Table 4 Propensity Score-Matched Outcomes

Variables	Number of Complete Blood Counts Drawn in the First 48 Hours of Admission for GI Bleed			*P* Value
	1-3 (n = 106)	4-6 (n = 106)	7 (n = 106)	
CCI score	3 (1)	2 (2)	3 (2)	NS
Cirrhosis	26 (25%)	13 (12%)	22 (21%)	NS
Antiplatelet therapy	2 (2%)	5 (5%)	4 (4%)	NS
Anticoagulation therapy	2 (2%)	6 (6%)	1 (1%)	NS
ICU admission	44 (42%)	33 (31%)	41 (39%)	NS
Systolic BP (mmHg)	106 (24)	104 (25)	104 (19)	NS
HR	97 (18)	98 (21)	99 (22)	NS
Hemoglobin (g/dL)	8.1 (1.4)	8.5 (1.8)	8.2 (1.2)	NS
Platelets/μl	174 (64)	191 (83)	169 (52)	NS
RBC transfusion	80 (76%)	80 (76%)	98 (93%)	<.05
RBC units	2 (1)	2 (1)	4 (2)	<.05
Time to endoscopy (h)	42	41	39	NS
Hospital LOS (d)	5.2 (3.4)	5.1 (2.6)	5.4 (3.2)	NS
Death	11 (10%)	5 (5%)	6 (6%)	NS
30-day readmission	39 (37%)	40 (38%)	41 (39%)	NS

BP = blood pressure; CCI = Charlson Comorbidity Index; ICU = intensive care unit; HR = heart rate; LOS = length of stay; RBC = red blood cell.

#9 No improvement in re-bleeding rate with earlier colonoscopy for patients hospitalized with lower gastrointestinal bleed

Bottom Line

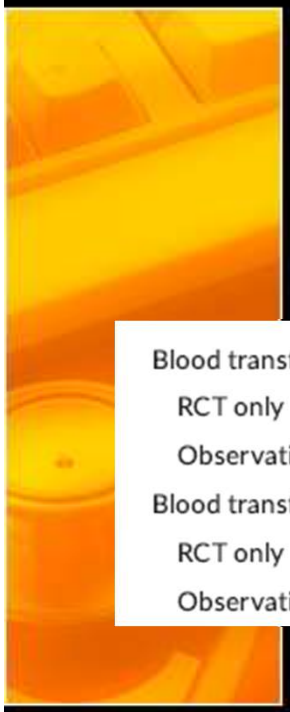
Both observational data and data from randomized controlled trials (RCTs) show no significant difference in re-bleeding rates when comparing early colonoscopy (within 24 hours of presentation) with elective colonoscopy (after 24 hours) for patients admitted to the hospital with lower gastrointestinal bleeding. (LOE = 1a-)

Aliment Pharmacol Ther 2020;52(5):774-788.

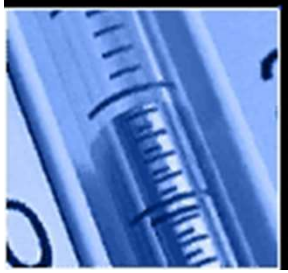
- These investigators searched multiple databases including OVID, MEDLINE, and EMBASE to find RCTs and observational studies that evaluated early colonoscopy, defined as colonoscopy performed within 24 hours of presentation, for patients hospitalized with lower gastrointestinal bleeding.
- Two authors independently assessed studies for inclusion and study quality.

- Overall, 4 RCTs (n = 466) and 13 observational studies (n = 1,061,281) that compared early colonoscopy with elective colonoscopy (after 24 hours) were selected.

	N studies	N patients	OR or MD (95% CI)	P value Heterogeneity	I^2
Primary outcomes					
Overall rebleeding rate					
RCT only	4	466	1.70 (0.79; 3.64)	0.14	45%
Observational only	7	17 988	1.20 (0.69; 2.09)	<0.01	70%
Secondary outcomes					
Mortality (related to LGIB)					
RCT only	4	466	0.49 (0.04; 5.58)	[a]	[a]
Observational only	3	423	2.47 (0.27; 22.74)	0.53	0%
Mortality (all causes)					
RCT only	4	466	0.93 (0.04; 19.36)	0.11	62%
Observational only	6	112 069	0.86 (0.75; 0.98)	0.47	0%
LOS					
RCT only	2	234	−0.10 (−1.44; 1.24)	0.51	0%
Observational only	4	931 366	−1.70 (−1.70; −1.70)	0.42	0%
Definite cause of Acute LGIB (including SHR)					
RCT only	4	466	1.71 (1.00; 2.93)	0.33	12%
Observational only	4	935	2.69 (0.74; 9.72)	<0.01	89%
Adverse events (procedure related)					
RCT only	4	466	1.02 (0.20; 5.12)	0.68	0%
Observational only	1	326	0.43 (0.13; 1.43)	—	—
Adverse events (any adverse events)					
RCT only	4	466	1.38 (0.77; 2.50)	0.63	0%
Observational only	1	326	0.43 (0.13; 1.43)	-	-
Surgery					
RCT only	4	466	0.86 (0.30; 2.41)	0.46	0%
Observational only	4	17 092	0.52 (0.42; 0.64)	0.86	0%



Blood transfusion rate					
RCT only	2	294	1.35 (0.78; 2.34)	0.64	0%
Observational only	7	1 057 016	0.81 (0.75; 0.87)	<0.01	92%
Blood transfusion (total)					
RCT only	2	172	−0.06 (−1.62; 1.50)	<0.01	92%
Observational only	1	69	−4.30 (−6.24; −2.36)	—	—



#10 **ACG guideline on the prevention, diagnosis, and treatment of Clostridioides difficile infections**

BOTTOM LINE

The American College of Gastroenterology (ACG) generally recommends against the use of probiotics to prevent *C. difficile* infections either in persons taking antibiotics or those with recurrent infections. Additionally, it recommends various oral antibiotics (vancomycin, fidaxomicin, or metronidazole) for treating active infections and the use of fecal microbiota transplantation in persons with severe or fulminant infections refractory to antibiotics or to prevent recurrent infections. (LOE = 5)

Am J Gastroenterol 2021;116(6):1124-1147.

- This is an update of the ACG 2013 guideline.
- Unlike previous ACG guidelines, this report does not describe much about the development process or the panel membership, other than their use of the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) system to grade the strength of the recommendations and the quality of the evidence.

Type of Recommendation	Intervention
Strongly in favor	Oral vancomycin, fidaxomicin, or metronidazole for treating persons with nonsevere infections
	Oral vancomycin or fidaxomicin for treating those with severe infections
	Fluid resuscitation plus oral vancomycin +/- parenteral metronidazole for patients with fulminant infections
	Fecal microbiota transplant in persons with severe and fulminant *C. difficile* infection refractory to antibiotic therapy and to prevent recurrence in those experiencing their second (or more) *C. difficile* infection
Conditionally in favor	Testing algorithms should use highly sensitive and highly specific tests to distinguish colonization from active infection
	Vancomycin enemas in persons with ileus
	Repeat fecal microbiota transplant for persons experiencing a recurrence within 8 weeks of an initial transplant
Conditionally against	Use of probiotics to prevent *C. difficile* in persons taking antibiotics
Strongly against	Use of probiotics to prevent recurrence

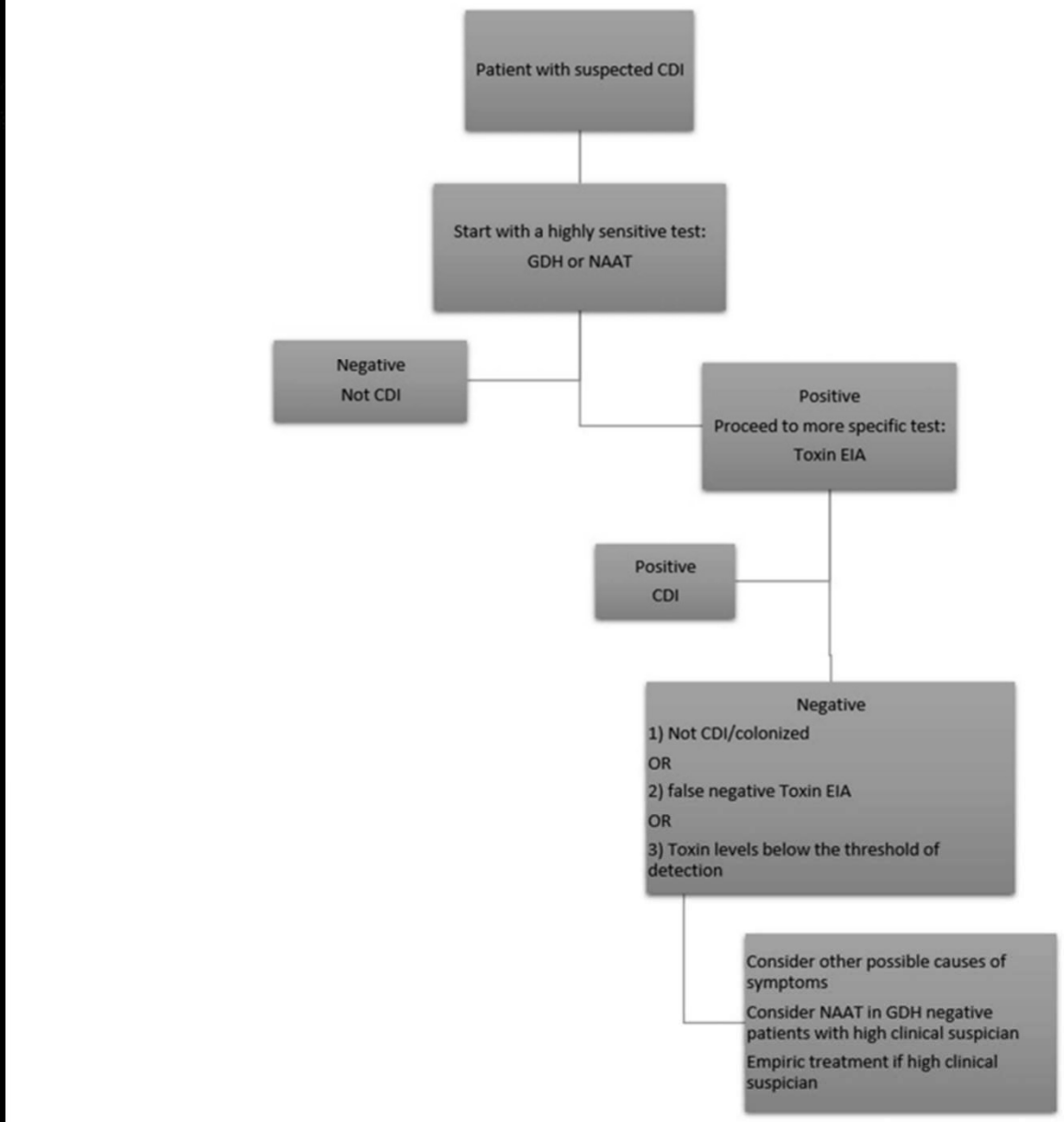
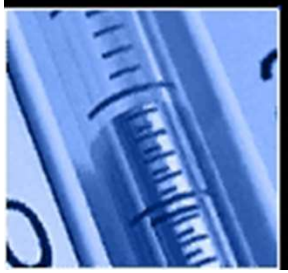


Figure 1. Proposed CDI testing algorithm. CDI, *Clostridioides difficile* infection; EIA, enzyme immunoassay; GDH, glutamate dehydrogenase; NAAT, nucleic acid amplification testing.

Treatment
4. We recommend that oral vancomycin 125 mg 4 times daily for 10 d be used to treat an initial episode of nonsevere CDI (strong recommendation, low quality of evidence).
5. We recommend that oral fidaxomicin 200 mg twice daily for 10 d be used for an initial episode of nonsevere CDI (strong recommendation, moderate quality of evidence).
6. Oral metronidazole 500 mg 3 times daily for 10 d may be considered for treatment of an initial nonsevere CDI in low-risk patients (strong recommendation/ moderate quality of evidence).
7. As initial therapy for severe CDI, we recommend vancomycin 125 mg 4 times a day for 10 d (strong recommendation, low quality of evidence).
8. As initial therapy for severe CDI, we recommend fidaxomicin 200 mg twice daily or 10 d (conditional recommendation, very low quality of evidence).
9. Patients with fulminant CDI should receive medical therapy that includes adequate volume resuscitation and treatment with 500 mg of oral vancomycin every 6 hr daily (strong recommendation, very low quality of evidence) for the first 48–72 hr. Combination therapy with parenteral metronidazole 500 mg every 8 hr can be considered (conditional recommendation, very low quality of evidence).
10. For patients with an ileus, the addition of vancomycin enemas (500 mg every 6 hr) may be beneficial (conditional recommendation, very low quality of evidence).
11. We suggest fecal microbiota transplantation (FMT) be considered for patients with severe and fulminant CDI refractory to antibiotic therapy, particularly, when patients are deemed poor surgical candidates (strong recommendation, low quality of evidence).
12. We suggest tapering/pulsed dose vancomycin for patients experiencing a first recurrence after an initial course of fidaxomicin, vancomycin, or metronidazole (strong recommendation, very low quality of evidence).
13: We recommend fidaxomicin for patients experiencing a first recurrence after an initial course of vancomycin or metronidazole (conditional recommendation, moderate quality of evidence).



Prevention of recurrence

14. We recommend patients experiencing their second or further recurrence of CDI be treated with FMT to prevent further recurrences (strong recommendation, moderate quality of evidence).

15. We recommend FMT be delivered through colonoscopy (strong recommendation, moderate quality of evidence) or capsules (strong recommendation, moderate quality of evidence) for treatment of rCDI; we suggest delivery by enema if other methods are unavailable (conditional recommendation, low quality of evidence).

16. We suggest repeat FMT for patients experiencing a recurrence of CDI within 8 wk of an initial FMT (conditional recommendation, very low quality of evidence).

17. For patients with rCDI who are not candidates for FMT, who relapsed after FMT, or who require ongoing or frequent courses of antibiotics, suppressive oral vancomycin may be used to prevent further recurrences (conditional recommendation, very low quality of evidence).

18. Oral vancomycin prophylaxis may be considered during subsequent systemic antibiotic use in patients with a history of CDI who are at high risk of recurrence to prevent further recurrence (conditional recommendation, low quality of evidence).

19. We suggest bezlotoxumab be considered for prevention of CDI recurrence in patients who are at high risk of recurrence (conditional recommendation, moderate quality of evidence).

20. We suggest against discontinuation of antisecretory therapy in patients with CDI, provided there is an appropriate indication for their use (strong recommendation, very low quality of evidence).

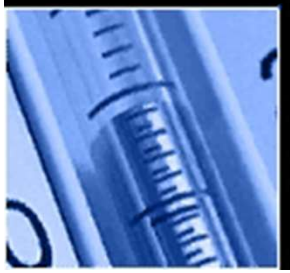
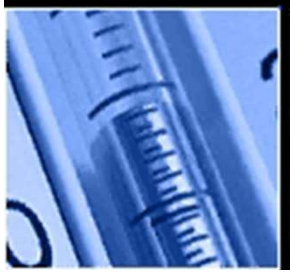


Table 3. Summary of key concept statements for the management of *Clostridium difficile*

Diagnosis and classification
1. Only individuals with symptoms suggestive of active *C. difficile* infection (CDI) should be tested (3 or more unformed stools in 24 hr)
2. We recommend the following criteria, which are predictive of unfavorable outcomes, be used to classify severe CDI at the time of diagnosis: white blood cell $\geq$15,000 cells/mm^3 or serum creatinine >1.5 mg/dL
3. We recommend defining fulminant infection as patients meeting criteria for severe CDI plus presence of hypotension or shock or ileus or megacolon
Treatment
4. We suggest that for patients who require surgical intervention, either a total colectomy with an end ileostomy and a stapled rectal stump or a diverting loop ileostomy with colonic lavage and intraluminal vancomycin, be used depending on clinical circumstances, the patient's estimated tolerance to surgery, and the surgeon's best judgement
Special populations
5. Immunosuppressive inflammatory bowel disease therapy should not be held during anti-CDI therapy in the setting of disease flare and escalation of therapy may be considered if there is no symptomatic improvement with treatment of CDI
6. We recommend using vancomycin to treat pregnant and peripartum patients with CDI
7. We recommend using vancomycin to treat breastfeeding patients with CDI
8. We suggest vancomycin or fidaxomicin be used first line for treatment of CDI in patients who are immunocompromised



One more time…..

#1 USPSTF CRC Screening Guideline Recommends Lowering Age for First Screening to 45 (B Recommendation)

#2 Low-volume same-day colonoscopy preparation is as effective as split-dose high-volume or low-volume preparations

#3 Computer-tailored intervention increases CRC screening among low-income African Americans in primary care

#4 Prophylactic clip application significantly reduces postpolypectemy bleeding in polyps ≥ 10mm

#5 Water-aided techniques improve serrated polyp detection

One more time…..

#6 American College of Gastroenterology guideline on managing irritable bowel syndrome

#7 Low-dose zinc (5 mg or 10 mg) is as good as 20 mg for childhood diarrhea

#8 More frequent hemoglobin monitoring is associated with more transfusions in patients with gastrointestinal bleeding

#9 No improvement in re-bleeding rate with earlier colonoscopy for patients hospitalized with lower gastrointestinal bleed

#10 ACG guideline on the prevention, diagnosis, and treatment of Clostridioides difficile infections


Stool
Sample


GASTROENTEROLOGY
CLINIC
THE ENDOSCOPE IS NEAR
DERING
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