#### SUPPLEMENTAL TABLES

# Supplemental Table 1. Study Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
1. Subject has provided informed consent.	1. Subject has indeterminate, ulcerative, or
2. Subject is ≥ 18 years of age.	antibiotic-associated colitis.
3. Subject is willing and able to comply with all aspects of the treatment and evaluation schedule.	2. Subject has stool positive for ova and parasite or for Clostridium difficile toxins within 3 months prior to enrollment.
4. Subject has known Crohn's disease and a recent history (within last 2 years) of mucosal	3. Subject with other known infectious cause of abdominal symptoms.
disease (based on radiologic, endoscopic, or histologic evidence) OR known Crohn's	4. Subject with clinical evidence of renal disease within the past 6 months, defined as estimated
disease and active disease, based on clinical judgment based on symptoms, laboratory data	glomerular filtration rate (GFR) outside of the normal reference range.
or other clinical information.	5. Subject with known history of intestinal obstruction or current obstructive symptoms, such as severe abdominal pain with accompanying nausea or vomiting, based on investigator judgment.
	6. Subject with a diagnosis of gastroparesis or small bowel or large bowel dysmotility.
	7. Subject with suspected or known bowel obstruction, stricture (defined as unequivocal proximal upstream dilation ≥ 2.5 cm), or fistula.
	8. Subject has used non-steroidal anti-inflammatory drugs including aspirin, two times or more per week,

during the 4 weeks preceding enrollment. Low dose aspirin regimens (≤100 mg daily) are acceptable and not exclusionary.

- 9. Subject suffers from any condition, such as swallowing problems, that precludes compliance with study and/or device instructions.
- 10. Subject with cardiac pacemaker or other implanted electromedical device.
- 11. Subject has any allergy or other known contraindication to the medications used in the study.
- 12. Subject is pregnant (documented by a positive pregnancy test) or is actively breast-feeding.
- 13. Subject is considered to be part of a vulnerable population (e.g. prisoners or those without sufficient mental capacity).
- 14. Subject has known contraindication to MRE or IC.
- 15. Subject has participated in a drug or device research study within 30 days of enrollment that may interfere with the subject's safety or ability to participate in the study.
- 16. Subject has any medical condition that would make it unsafe for them to participate, per the Investigator's discretion
- 17. Subject with ileostomy or colostomy, history of

total or subtotal colectomy (including those with
ileosigmoidostomy, and ileorectostomy

Supplementary material

BMJ Open Gastro

### **Supplemental Table 2.** Protocol for MRE Imaging parameters

Sequence	T2 Steady State Free Precession (Fisp,FFE,MPGR) w/fatsat	T2 Steady State Free Precession (Fisp,FFE,MPGR) wo/fatsat	T2 Single Shot FSE 2D (SSFSE) w/fatsat	T2 Single Shot FSE 2D (SSFSE) wo/fatsat	Optional SSFP, SSFSE or Balanced SSFP (True Fisp) with or without fat sat	GRE T1 weighted Dynamic series, (Thrive, Vibe, Lava) One pre, 2 post – 45 seconds and 180 seconds	T1 GRE
2D/3D	2D	2D	2D	2D	2D	3D	2D or 3D
Orientation	Coronal	Coronal	Coronal	Coronal	Axial	Coronal	Axial
Matrix	256 x 192 or higher preferred	or higher preferred	256 x 192 or higher preferred	256 x 192 or higher preferred	256 x 192 or higher preferred	256 x 192 or higher preferred	256 x 192 or higher preferred
Slice thickness	< 5 mm preferred	< 5 mm preferred	< 5 mm preferred	< 5 mm preferred	7-8 mm	3mm or less	7-8 mm 2D 4 mm 3D
Slice Gap (preferred)	< 1 mm	< 1 mm	< 1 mm	< 1 mm	1 to 2 mm	0 mm	2 to 2 mm 2D 0mm 3D
Coverage	fundus of stomach to anus	fundus of stomach to anus	fundus of stomach to anus	fundus of stomach to anus	-	small bowel (including duodenum), colon, rectum, and anus	small bowel (including duodenum), colon, rectum, and anus
FOV	380-420	380-420	380-420	380-420	340-380	380-420	340-380

Adjust for							
coverage							
Fat Sat	yes	no	yes	no	either	yes	yes

In addition, do at least one of the above pulse sequences (true-FISP, SSFSE) in the axial plane. This may be done in place of one of the coronal series.

## Supplemental Table 3. Study Schedule and complete bowel preparation procedure

Day	Time	Procedure				
Day (-30)	Any	Baseline visit [laboratory test, concomitant medications, patient satisfaction questionnaire, AEs, Study deviations]				
Day (-30 to -1)	4 hrs prior to MRE	Water only				
	As defined by radiologist	Ingest 1L to 1.8L bowel prep solution				
	As scheduled	MRE procedure				
	Any	Patency capsule [if needed]				
Day (-1)	All day	Clear liquid diet				
	13 to 15 hrs prior to CE	Ingest 2 L PEG electrolyte lavage solution				
Day (0)	1 to 3 hrs prior to CE	Ingest 2 L PEG electrolyte lavage solution				
	As scheduled	CE ingestion with sip of water				
	1 hr after CE ingestion	Take 10 mg Metoclopramide or 250mg oral Erythromycin, Alert 0*				
	Upon SB detection	0.5 bottle (88 mL) of sodium sulfate, potassium sulfate, and magnesium sulfate solution diluted to per packet instructions followed by 1L water, Alert 1				
	3 hrs later	0.5 bottle (88 mL) of sodium sulfate, potassium sulfate, and magnesium sulfate solution diluted to per packet instructions followed by 1L water, Alert 2				
	2 hrs later	10 mg Bisacodyl suppository or 250 mg oral erythromycin, Alert 3				
	End of CE Procedure/Ex	xcretion of CE				

Day (0 to 1)	Prior to IC	NPO or clear liquid diet
	After CE completion or Next day	IC procedure

PEG, polyethylene glycol; NPO, nothing by mouth; IC, ileocolonoscopy; CE, capsule endoscopy;

MRE, magnetic resonance enterography; SB, small bowel. \*Note: Not all patients received Alert 0

## Supplemental Table 4. Summary of Baseline Demographics and Clinical Characteristics

	Enrolled
	07.410)
	(N=119)
Age (years), mean (± SD)	39.8 (12.26)
Gender, n(%)	
Female	71 (60%)
Male	48 (40%)
BMI (kg/m2), mean (± SD)	29.0 (7.53)
Montreal Classification (age of onset, years), n(%)	
A1 (<16)	10 (8%)
A2 (16-40)	91 (77%)
A3 (>40)	18 (15%)
Disease behaviour, n(%)	
B1 – Inflammatory	91 (77%)
B2 – Stricturing	18 (15%)
B3 – Penetrating	10 (8%)
Disease Location, n(%)	
L1 – Ileum	38 (32%)
L2 – Colon	18 (15%)
L3 – Ileocolon	63 (53%)
Concomitant Crohn's-related Medications ≥1, n(%)	100 (84%)
Anti-inflammatory/5-ASA drugs	16 (16%)
Steroids	27 (27%)
Biologics	72 (72%)

Immunomodulators	39 (39%)			
Other (Symptomatic relief, nutritional/vitamin supplements)	49 (49%)			
Laboratory parameters, mean (± SD)				
Albumin (g/dL)	4.29 (0.38)			
CRP (mg/dL)	4.19 (6.20)			
Hemoglobin (g/dL)	13.34 (1.69)			
Fecal calprotectin (µg/g) 268.39 (349.29)				
5-ASA, aminosalicylate; BMI, body mass index; CRP, C-reactive protein; SD, standard deviation				

#### Supplemental Table 5. Summary of Discrepant Reads Between Modalities and Consensus Panel Determination

	Modality	evaluation*	Consensus Panel Decision†					
Segment	Agreement	Discrepancy	Agreement with CE	Agreement with MRE	Agreement with IC	Agreement with CE+IC	Agreement with CE+MRE	Agreement with IC+MRE
Proximal Small Bowel (N=98)	56/98 (57%)	42/98 (43%)	32/42 (76%)	10/42 (24%)				
Terminal Ileum (N=90)	44/90 (49%)	46/90 (51%)	4/46 (9%)	2/46 (4%)	4/46 (9%)	24/46 (52%)	8/46 (17%)	4/46 (9%)
Colon (N=88)	71/88 (81%)	17/88 (19%)	7/17 (41%)		10/17 (59%)			

CE, capsule endoscopy; IC, ileocolonoscopy; MRE, magnetic resonance enterography

<sup>\*</sup>Comparison of CE and MRE in the proximal small bowel; CE MRE, and IC or combination of two modalities in the terminal ileum; comparison of CE and IC in the colon.

<sup>†</sup>When the interpretation of the Lewis Score disagreed with the interpretation of the MaRIA score, consensus panel members evaluated capsule endoscope and MRE images in consensus, with their consensus agreement constituting the reference standard in cases of disagreement.

# Supplemental Table 6. Summary of adverse events per event and per subject

	Enrolled (N=119)			
Total subjects ≥1 AEs, <b>N</b>	16			
Total number of AEs, <b>N</b>	21			
Total Mild/Moderate AEs, N	14			
Total SAEs, N	7			
Abdominal Pain	1			
CD flare	2			
Exacerbation of CD	1			
Clostridium difficile	1			
Serum sickness	1			
Capsule retention	1			
AEs, adverse event; CD, Crohn's disease; SAE, serious adverse events				