Supplementary Table 1 – Achievement of week 52 outcomes stratified by simplified baseline, week 6 and 14 PRO categories

Variable	n=611	Week 52 EI*	Week 52 HEMI*	Week 52 CR*	Week 52 PRO-2 remission*
Baseline RBS, n (%)					
Absence	64 (10.5)	35/64 (54.7)	28/64 (43.8)	26/64 (40.6)	45/64 (70.3)
Presence	547 (89.5)	266/547 (48.6)	192/547 (35.1)	213/547 (38.9)	347/547 (63.4)
Baseline SF score, n (%)					
Normal	22 (3.6)	14/22 (63.6)	10/22 (45.5)	12/22 (54.6)	15/22 (68.2)
Mild/Moderate	352 (57.6)	182/352 (51.7)	127/352 (36.1)	143/352 (40.6)	238/352 (67.6)
Severe	237 (38.8)	105/237 (44.3)	83/237 (35.0)	84/237 (35.4)	139/237 (58.7)
Week 6 RBS, n (%)					
Absence	367 (60.1)	210/367 (57.2)	159/367 (43.3)	178/367 (48.5)	275/367 (74.9)
Presence	244 (39.9)	91/244 (37.3)	61/244 (25.0)	61/244 (25.0)	117/244 (48.0)
Week 6 SF score, n (%)					
Normal	181 (29.6)	106/181 (58.6)	82/181 (45.3)	96/181 (53.0)	145/181 (80.1)
Mild/Moderate	350 (57.3)	171/350 (48.9)	125/350 (35.7)	131/350 (37.4)	220/350 (62.9)
Severe	80 (13.1)	24/80 (30.0)	13/80 (16.3)	12/80 (15.0)	27/80 (33.8)
Week 14 RBS, n (%)					
Absence	432 (70.7)	242/432 (56.0)	186/432 (43.1)	206/432 (47.7)	325/432 (75.2)
Presence	179 (29.3)	59/179 (33.0)	34/179 (18.9)	33/179 (18.3)	67/179 (37.4)
Week 14 SF score, n (%)					
Normal	253 (41.4)	161/253 (63.6)	121/253 (47.8)	142/253 (56.1)	204/253 (80.6)
Mild/Moderate	298 (48.8)	122/298 (40.9)	88/298 (29.5)	90/298 (30.2)	170/298 (57.1)
Severe	60 (9.8)	18/60 (30.0)	11/60 (18.3)	7/60 (11.7)	18/60 (30.0)

*p<0.001

RBS: Rectal bleeding score

SF: Stool frequency

Mild rectal bleeding score: Visible blood with stool less than half the time

Moderate rectal bleeding score: Visible blood with stool half of the time or more

Severe rectal bleeding score: Passing blood alone

Mild stool frequency score: 1-2 stools/day more than normal

Moderate stool frequency score: 3-4 stools/day more than normal

Severe stool frequency score: >4 stools/day more than normal

Supplementary Table 2 – Achievement of week 52 HEMI and PRO-2 remission stratified by baseline, week 6 and 14 PRO categories

Variable	n=611	Week 52 HEMI*	Week 52 PRO-2 remission*
Baseline RBS, n (%)			
None	64 (10.5)	28/64 (43.8)	45/64 (70.3)
Mild	169 (27.7)	55/169 (32.5)	110/169 (65.1)
Moderate	329 (53.9)	121/329 (36.8)	211/329 (64.1)
Severe	49 (8.0)	16/49 (32.7)	26/49 (53.1)
Baseline SF score, n (%)			
Normal	22 (3.6)	10/22 (45.5)	15/22 (68.2)
Mild	82 (13.4)	37/82 (45.1)	56/82 (68.3)
Moderate	270 (44.2)	90/270 (33.3)	182/270 (67.4)
Severe	237 (38.8)	83/237 (35.0)	139/237 (58.7)
Week 6 RBS, n (%)			
None	367 (60.1)	159/367 (43.3)	275/367 (74.9)
Mild	165 (27.0)	40/165 (24.2)	86/165 (52.1)
Moderate	67 (11.0)	17/67 (25.4)	27/67 (40.3)
Severe	12 (2.0)	4/12 (33.3)	4/12 (33.3)
Week 6 SF score, n (%)			
None	181 (29.6)	82/181 (45.3)	145/181 (80.1)
Mild	209 (34.2)	81/209 (38.8)	143/209 (68.4)
Moderate	141 (23.1)	44/141 (31.2)	77/141 (54.6)
Severe	80 (13.1)	13/80 (16.3)	27/80 (33.8)
Week 14 RBS, n (%)			
None	432 (70.7)	186/432 (43.1)	325/432 (75.2)
Mild	125 (20.5)	22/125 (17.6)	46/125 (36.8)
Moderate	49 (8.0)	12/49 (24.5)	20/49 (40.8)
Severe	5 (0.8)	0/5	1/5 (20.0)
Week 14 score, n (%)			
Normal	253 (41.4)	121/253 (47.8)	204/253 (80.6)
Mild	194 (31.8)	69/194 (35.6)	132/194 (68.0)
Moderate	104 (17.0)	19/104 (18.3)	38/104 (36.5)
Severe	60 (9.8)	11/60 (18.3)	18/60 (30.0)

*p<0.001

HEMI: Histo-endoscopic mucosal improvement

PRO-2: Patient-reported outcome 2-item

RBS: Rectal bleeding score

SF: Stool frequency

Mild rectal bleeding score: Visible blood with stool less than half the time

Moderate rectal bleeding score: Visible blood with stool half of the time or more

Severe rectal bleeding score: Passing blood alone

Mild stool frequency score: 1-2 stools/day more than normal

Moderate stool frequency score: 3-4 stools/day more than normal

Severe stool frequency score: >4 stools/day more than normal

Supplementary Table 3 – Week 6 and 14 PROs predicting week 52 HEMI (Mayo endoscopic subscore < 2 and Geboes highest grade < 3.2)

Comparison	Week 6				Week 14			
	Unadjusted		Adjusted*		Unadjusted		Adjusted*	
	OR (95% CI)	P-value	OR (95% CI)	P-value	OR (95% CI)	P-value	OR (95% CI)	P-value
Severe vs. not stool frequency	0.30 (0.16-0.56)	<0.001	0.32 (0.17-0.61)	<0.001	0.37 (0.19-0.72)	0.004	0.39 (0.19-0.77)	0.007
Mod-Severe vs. not stool frequency	0.48 (0.34-0.56)	<0.001	0.51 (0.35-0.74)	<0.001	0.30 (0.20-0.47)	<0.001	0.34 (0.22-0.53)	<0.001
Severely elevated vs. normal stool frequency	0.25 (0.12-0.53)	<0.001	0.25 (0.12-0.49)	<0.001	0.31 (0.15-0.67)	0.003	0.29 (0.14-0.61)	0.001
Mild/moderately elevated vs. normal stool frequency	0.63 (0.42-0.94)	0.024	0.67 (0.45-0.99)	0.042	0.45 (0.31-0.66)	<0.001	0.45 (0.31-0.65)	<0.001
Normalization of stool frequency	1.75 (1.23-2.50)	0.002	1.76 (1.22-2.54)	0.002	2.40 (1.71-3.36)	<0.001	2.29 (1.62-3.23)	<0.001
Severe vs. not rectal bleeding	0.89 (0.26-2.98)	0.846	0.72 (0.18-2.79)	0.633	N/A	N/A	N/A	N/A
Mod-severe vs. not rectal bleeding	0.61 (0.36-1.03)	0.063	0.64 (0.37-1.10)	0.108	0.48 (0.25-0.93)	0.030	0.55 (0.28-1.09)	0.085
No rectal bleeding	2.29 (1.61-3.27)	<0.001	2.21 (1.54-3.18)	<0.001	3.22 (2.12-4.90)	<0.001	2.80 (1.82-4.29)	<0.001

*Adjusted for disease duration, treatment allocation, prior anti-TNF exposure, and concomitant corticosteroid use

Supplementary Table 4 – Week 6 and 14 PROs predicting week 52 HEMI (Mayo endoscopic subscore < 2 and Geboes highest grade < 3.1

Comparison	Week 6				Week 14			
	Unadjusted		Adjusted*		Unadjusted		Adjusted*	
	OR (95% CI)	P-value	OR (95% CI)	P-value	OR (95% CI)	P-value	OR (95% CI)	P-value
Severe vs. not stool frequency	0.33 (0.15-0.70)	0.004	0.35 (0.16-0.80)	0.013	0.34 (0.14-0.81)	0.014	0.36 (0.15-0.88)	0.025
Mod-Severe vs. not stool frequency	0.41 (0.26-0.64)	<0.001	0.44 (0.28-0.69)	<0.001	0.25 (0.14-0.45)	<0.001	0.30 (0.17-0.53)	<0.001
Normalization of stool frequency	1.80 (1.21-2.66)	0.004	1.74 (1.15-2.62)	0.008	1.97 (1.35-2.88)	<0.001	1.89 (1.27-2.81)	0.002
Severe vs. not rectal bleeding	1.10 (0.29-4.13)	0.884	0.78 (0.16-3.86)	0.763	N/A	N/A	N/A	N/A
Mod-severe vs. not rectal bleeding	0.68 (0.37-1.25)	0.216	0.68 (0.35-1.30)	0.244	0.39 (0.16-0.92)	0.033	0.45 (0.18-1.10)	0.081
No rectal bleeding	2.70 (1.76-4.15)	<0.001	2.68 (1.71-4.19)	<0.001	3.13 (1.88-5.21)	<0.001	2.57 (1.52-4.36)	<0.001
Severely elevated vs. normal stool frequency	0.25 (0.11-0.55)	0.001	0.23 (0.09-0.56)	0.001	0.25 (0.10-0.62)	0.002	0.59 (0.39-0.88)	0.010
Mild/moderately elevated vs. normal stool frequency	0.64 (0.43-0.96)	0.030	0.64 (0.42-0.98)	0.038	0.56 (0.38-0.83)	0.004	0.26 (0.11-0.65)	0.004

*Adjusted for disease duration, treatment allocation, prior anti-TNF exposure, and concomitant corticosteroid use

Supplementary Table 5 - Week 2 PROs predicting week 52 endoscopic improvement (Mayo endoscopic subscore < 2)

Comparison	Week 2			
	Unadjusted		Adjusted*	
	OR (95% CI)	P-value	OR (95% CI)	P-value
Severe vs. not stool frequency	0.47 (0.31-0.70)	<0.001	0.44 (0.29-0.67)	<0.001
Mod-Severe vs. not stool frequency	0.69 (0.50-0.95)	0.022	0.65 (0.47-0.90)	0.010
Severely elevated vs. normal stool frequency	0.28 (0.15-0.50)	<0.001	0.25 (0.14-0.47)	<0.001
Mild/moderately elevated vs. normal stool frequency	0.89 (0.62-1.28)	0.537	0.86 (0.59-1.24)	0.415
Normalization of stool frequency	1.75 (1.13-2.70)	0.011	1.96 (1.26-3.06)	0.003
Severe vs. not rectal bleeding	1.03 (0.44-2.42)	0.944	1.04 (0.44-2.45)	0.932
Mod-severe vs. not rectal bleeding	0.88 (0.61-1.26)	0.485	0.86 (0.59-1.23)	0.406
No rectal bleeding	1.61 (1.15-2.24)	0.005	1.69 (1.20-2.37)	0.003

*Adjusted for prior anti-TNF use, treatment allocation and disease duration

Supplementary Table 6 – Area under the receiver operating characteristic curves of week 14 predictors for week 52 clinical remission (total Mayo score ≤ 2) and endoscopic improvement (Mayo endoscopic subscore < 2)

Week 14 predictor	Clinical remission at week 52		Endoscopic improvement at week 52	
	AUC (95% CI)	p-value	AUC (95% CI)	p-value
Total Mayo score	0.78 (0.75-0.82)	<0.001	0.74 (0.70-0.78)	<0.001
Modified Partial Mayo score	0.71 (0.67-0.75)		0.66 (0.62-0.70)	
Total Mayo score	0.78 (0.75-0.82)	<0.001	0.74 (0.70-0.78)	0.005
Fecal calprotectin (mcg/g) (continuous)	0.70 (0.66-0.75)		0.69 (0.65-0.74)	

Total Mayo score	0.78 (0.75-0.82)	<0.001	0.74 (0.70-0.78)	<0.001
Mayo stool frequency subscore	0.69 (0.65-0.73)		0.64 (0.60-0.69)	
Total Mayo score	0.78 (0.75-0.82)	<0.001	0.74 (0.70-0.78)	<0.001
C-reactive protein (mg/L) (continuous)	0.66 (0.62-0.71)		0.63 (0.58-0.67)	
Total Mayo score	0.78 (0.75-0.82)	<0.001	0.74 (0.70-0.78)	<0.001
Mayo rectal bleeding subscore	0.63 (0.60-0.66)		0.60 (0.56-0.63)	
Total Mayo score	0.78 (0.75-0.82)	<0.001	0.74 (0.70-0.78)	0.005
Rectal bleeding absent vs. present	0.63 (0.59-0.66)		0.60 (0.56-0.63)	
Total Mayo score	0.78 (0.75-0.82)	<0.001	0.74 (0.70-0.78)	0.005
Mayo stool frequency subscore normal, mild/moderate, and severe	0.67 (0.63-0.71)		0.63 (0.59-0.67)	
Partial Mayo score	0.74 (0.70-0.78)	0.007	0.69 (0.64-0.73)	0.005
Modified Partial Mayo score	0.71 (0.67-0.75)		0.66 (0.62-0.70)	
Partial Mayo score	0.74 (0.70-0.78)	<0.001	0.69 (0.64-0.73)	0.001
Modified PRO-2 score*	0.70 (0.66-0.74)		0.65 (0.61-0.69)	
Modified Partial Mayo score	0.71 (0.67-0.75)	0.026	0.66 (0.62-0.70)	0.171
Modified PRO-2 score*	0.70 (0.66-0.74)		0.65 (0.61-0.69)	
Modified Partial Mayo score	0.71 (0.67-0.75)	0.453	0.66 (0.62-0.70)	0.587
Fecal calprotectin (mcg/g) (continuous)	0.70 (0.66-0.75)		0.69 (0.65-0.74)	
Modified Partial Mayo score	0.71 (0.67-0.75)	0.071	0.66 (0.62-0.70)	0.099
C-reactive protein (mg/L) (continuous)	0.66 (0.62-0.71)		0.63 (0.58-0.67)	
Mayo stool frequency subscore	0.69 (0.65-0.73)	<0.001	0.64 (0.60-0.69)	0.017
Mayo stool frequency subscore normal, mild/moderate, and severe	0.67 (0.63-0.71)		0.63 (0.59-0.67)	

Mayo rectal bleeding subscore of 0 and CRP < 5mg/L or FC < 250mcg/g	0.68 (0.64-0.72)	<0.001	0.65 (0.61-0.68)	<0.001
Mayo rectal bleeding subscore of 0	0.63 (0.60-0.66)		0.60 (0.56-0.63)	
Mayo stool frequency subscore of 0 and CRP < 5mg/L or FC < 250mcg/g	0.67 (0.63-0.71)	0.033	0.64 (0.60-0.68)	0.036
Mayo stool frequency subscore of 0	0.65 (0.61-0.69)		0.62 (0.58-0.66)	
Mayo stool frequency subscore of 0	0.65 (0.61-0.69)	0.001	0.62 (0.58-0.66)	0.011
Mayo stool frequency subscore of 0 and CRP < 5mg/L and FC < 250mcg/g	0.59 (0.56-0.62)		0.57 (0.55-0.60)	
Mayo rectal bleeding subscore	0.63 (0.60-0.66)	0.599	0.60 (0.56-0.63)	0.654
Rectal bleeding absent vs. present	0.63 (0.59-0.66)		0.60 (0.56-0.63)	
Mayo rectal bleeding subscore of 0	0.63 (0.60-0.66)	0.192	0.60 (0.56-0.63)	0.679
Mayo rectal bleeding subscore of 0 and CRP < 5mg/L and FC < 250mcg/g	0.60 (0.56-0.64)		0.59 (0.55-0.62)	

*Based on Mayo stool frequency subscore normal, mild/moderate, and severe and absence or presence of rectal bleeding