

Supplementary Table 1. Eligibility Criteria.

Randomised controlled trials.
Ambulatory adult (aged ≥ 18 years) patients with moderate to severely active ulcerative colitis (UC)*.
Compared biological therapies or small molecules† at the doses taken on into phase III randomised controlled trials with placebo or each other.
Minimum duration of follow-up of 6 weeks.
Assessment of induction of clinical remission, endoscopic improvement, or clinical response to treatment.

*Patients with acute severe ulcerative colitis requiring hospitalisation were not considered.

†Anti-TNF α antibodies (infliximab, adalimumab, or golimumab), anti-integrin antibodies (vedolizumab or etrolizumab), anti-interleukin-12/23 antibodies (ustekinumab), janus kinase inhibitors (tofacitinib, filgotinib, or upadacitinib), or sphingosine-1-phosphate receptor modulators (ozanimod).

Supplementary Table 2. Total Number of Trials of Each Intervention, and Total Number of Included Patients with Moderate to Severe UC Assigned to Biological Therapies, Small Molecules, or Placebo.

	Intervention	Number of RCTs	Total Number of Patients	References
Active intervention	Infliximab 10mg/kg	2	242	[1]
	Infliximab 5mg/kg	6	635	[1-4] NCT01551290
	Adalimumab 160/160mg	1	512	[5]
	Adalimumab 160/80mg	7	1489	[5-10]
	Adalimumab 80/40mg	2	217	[6, 8]
	Golimumab 400/200mg	1	331	[11]
	Golimumab 200/100mg	1	331	[11]
	Vedolizumab 300mg	3	774	[9, 12, 13]
	Etrolizumab 105mg	5	911	[4, 10, 14, 15]
	Ustekinumab 130mg	1	320	[16]
	Ustekinumab 6mg/kg	1	322	[16]
	Tofacitinib 10mg b.i.d.	3	938	[17, 18]
	Ozanimod 1mg o.d.	2	496	[19, 20]
	Filgotinib 200mg o.d.	2	507	[21]
	Filgotinib 100mg o.d.	2	562	[21]

	Upadacitinib 45mg o.d.	2	660	[22]
Placebo		25	3257	[1-3, 6-8, 10-22] NCT01551290

Supplementary Table 3. Characteristics of Randomised Controlled Trials of Biological Therapies or Small Molecules in Moderate to Severe UC.

Study	Country and Number of Centres	Disease Distribution	Number of Patients (% Anti-TNF- α Naïve) and Severity of UC	Active Therapy (Number of Patients) and Dosing Schedule	Placebo Dosing Schedule (Number of Patients)	Duration of Follow-up
Rutgeerts 2005 ACT 1 [1]	Multinational, 62 centres	46% extensive colitis, 54% left sided	364 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Infliximab 5mg/kg (121) or 10mg/kg (122) at 0, 2, and 6 weeks	Placebo at 0, 2, and 6 weeks (121)	8 weeks
Rutgeerts 2005 ACT 2 [1]	Multinational, 55 centres	60% extensive colitis, 40% left sided	364 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Infliximab 5mg/kg (121) or 10mg/kg (120) at 0, 2, and 6 weeks	Placebo at 0, 2, and 6 weeks (123)	8 weeks
NCT01551290	China, 12 centres	Not reported	99 (100), Mayo score ≥ 6	Infliximab 5mg/kg at 0, 2, and 6 weeks (50)	Placebo at 0, 2, and 6 weeks (49)	8 weeks

Jiang 2015 [2]	China, single centre	62% extensive colitis, 38% left sided	82 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Infliximab 5mg/kg at 0, 2, and 6 weeks (41)	Placebo at 0, 2, and 6 weeks (41)	8 weeks
Kobayashi 2016 [3]	Japan, 67 centres	80% extensive colitis, 20% left sided	208 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Infliximab 5mg/kg at 0, 2, and 6 weeks (104)	Placebo at 0, 2, and 6 weeks (104)	8 weeks
Reinisch 2011 ULTRA 1 [6]	Multinational, 94 centres	52% extensive colitis, 48% left sided	390 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Adalimumab 80/40mg at weeks 0 and 2 (130), or 160/80mg at weeks 0 and 2 (130) then 40mg every other week	Placebo at 0, 2, 4, and 6 weeks (130)	8 weeks
Sandborn 2012 ULTRA 2 [7]	Multinational, 103 centres	49% extensive colitis, 51% left sided	518 (60), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Adalimumab 160/80mg at weeks 0 and 2 then 40mg every other week (258)	Placebo at 0, 2, 4, and 6 weeks (260)	8 weeks
Suzuki 2014 [8]	Japan, 65 centres	64% extensive colitis, 36% left sided	273 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Adalimumab 80/40mg at weeks 0 and 2 (87), or 160/80mg at weeks 0 and 2 (90) then 40mg every other week	Placebo at 0, 2, 4, and 6 weeks (96)	8 weeks

Panes 2019 SERENE-UC [5]	Multinational, 173 centres	Not reported	852 (not reported), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Adalimumab 160/80mg at weeks 0 and 2 (340), or 160mg at weeks 0, 1, 2, and 3 (512) then 40mg every other week	N/A	8 weeks
Sandborn 2014 PURSUIT SC [11]	Multinational, 217 centres	42% extensive colitis, 58% left sided	993 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Golimumab 400/200mg at weeks 0 and 2 (331), or 200/100mg at weeks 0 and 2 (331)	Placebo at weeks 0 and 2 (331)	6 weeks
Feagan 2013 GEMINI 1 [12]	Multinational, 211 centres	47% extensive colitis, 53% left sided	374 (61), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Vedolizumab 300mg at weeks 0 and 2 (225)	Placebo at weeks 0 and 2 (149)	6 weeks
Sands 2019 VARSITY [9]	Multinational, 245 centres	Not reported	771 (79), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Vedolizumab 300mg at weeks 0, 2, and 6 (385) or adalimumab 160/80mg at weeks 0 and 2 then 40mg every other week (381)	N/A	14 weeks
Motoya 2019 [13]	Japan, 86 centres	62% extensive colitis, 38% left sided	246 (49), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Vedolizumab 300mg at weeks 0, 2, and 6 (164)	Placebo 300mg at weeks 0, 2, and 6 (82)	10 weeks

Vermeire 2014 EUCALYPTUS [14]	Multinational, 40 centres	33% extensive colitis, 67% left sided	84 (38), Mayo score ≥6 with endoscopic subscore ≥2	Etrolizumab 100mg at weeks 0, 4, and 8 (41)	Placebo at weeks 0, 4, and 8 (43)	10 weeks
Danese 2021 [4] GARDENIA	Multinational, 114 centres	37% extensive colitis, 63% left sided	397 (100), Mayo score ≥6 with endoscopic subscore ≥2	Etrolizumab 105mg at weeks 0, 4, and 8 (199) or infliximab 5mg/kg at 0, 2, and 6 weeks (198)	N/A	10 weeks
Peyrin-Biroulet 2021 [15] HICKORY	Multinational, 184 centres	51% extensive colitis, 49% left sided	479 (0), Mayo score ≥6 with endoscopic subscore ≥2	Etrolizumab 105mg at weeks 0, 4, 8 and 12 (384)	Placebo at weeks 0, 4, 8, and 12 (95)	14 weeks
Rubin 2021 [10] HIBISCUS I	Multinational, 97 centres	39% extensive colitis, 61% left sided	358 (100), Mayo score ≥6 with endoscopic subscore ≥2	Etrolizumab 105mg at weeks 0, 4, and 8 (144) or adalimumab 160/80mg at weeks 0 and 2 then 40mg every other week (142)	Placebo at weeks 0, 4, and 8 and placebo at weeks 0, 2, 4, 6, and 8 (72)	10 weeks
Rubin 2021 [10] HIBISCUS II	Multinational, 110 centres	38.5% extensive colitis, 61.5% left sided	358 (100), Mayo score ≥6 with endoscopic subscore ≥2	Etrolizumab 105mg at weeks 0, 4, and 8 (143) or adalimumab 160/80mg at weeks 0 and 2 then 40mg every other week (143)	Placebo at weeks 0, 4, and 8 and placebo at weeks 0, 2, 4, 6, and 8 (72)	10 weeks

Sands 2019 UNIFI [16]	Multinational, 244 centres	46% extensive colitis, 54% left sided	961 (46), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Ustekinumab 130mg (320) or 6mg/kg (322) at week 0	Placebo at week 0 (319)	8 weeks
Sandborn 2012 [17]	Multinational, 51 centres	41% extensive colitis, 59% left sided	81 (69), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Tofacitinib 10mg b.i.d. for 8 weeks (33)	Placebo b.i.d. for 8 weeks (48)	8 weeks
Sandborn 2017 OCTAVE 1 [18]	Multinational, 144 centres	53% extensive colitis, 47% left sided	598 (49), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Tofacitinib 10mg b.i.d. for 8 weeks (476)	Placebo b.i.d. for 8 weeks (122)	8 weeks
Sandborn 2017 OCTAVE 2 [18]	Multinational, 169 centres	49% extensive colitis, 51% left sided	541 (48), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Tofacitinib 10mg b.i.d. for 8 weeks (429)	Placebo b.i.d. for 8 weeks (112)	8 weeks
Sandborn 2016 TOUCHSTONE [19]	Multinational, 57 centres	38% extensive colitis, 62% left sided	132 (83), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Ozanimod 1mg o.d. for 10 weeks (67)	Placebo o.d. for 10 weeks (65)	8 weeks
Sandborn 2021 TRUE NORTH [20]	Multinational, 285 centres	38% extensive colitis, 62% left sided	645 (70), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Ozanimod 1mg o.d. for 10 weeks (429)	Placebo o.d. for 10 weeks (216)	10 weeks

Feagan 2021 SELECTION [21]	Multinational, 341 centres	Not reported	659 (100), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Filgotinib 100mg (277) or 200mg (245) o.d. for 11 weeks	Placebo o.d. for 11 weeks (137)	10 weeks
Feagan 2021 SELECTION [21]	Multinational, 341 centres	Not reported	689 (7.5), Mayo score ≥ 6 with endoscopic subscore ≥ 2	Filgotinib 100mg (285) or 200mg (262) o.d. for 11 weeks	Placebo o.d. for 11 weeks (142)	10 weeks
Vermeire U- ACHIEVE [22]	Multinational, 496 centres	Not reported	473 (48), adapted Mayo score ≥ 5 with endoscopic subscore ≥ 2	Upadacitinib 45mg o.d. for 8 weeks (319)	Placebo o.d. for 8 weeks (154)	8 weeks
Vermeire U- ACCOMPLISH [22]	Multinational, 382 centres	Not reported	515 (49), adapted Mayo score ≥ 5 with endoscopic subscore ≥ 2	Upadacitinib 45mg o.d. for 8 weeks (341)	Placebo o.d. for 8 weeks (174)	8 weeks

Supplementary Table 4. Risk of Bias of Randomised Controlled Trials of Biological Therapies or Small Molecules in Moderate to Severe UC.

Study	Method of Generation of Randomisation Schedule Stated?	Method of Concealment of Treatment Allocation Stated?	Blinding?	No Evidence of Incomplete Outcomes Data?	No Evidence of Selective Reporting of Outcomes?
Rutgeerts 2005 ACT 1 [1]	Unclear	Low	Low	Low	Low
Rutgeerts 2005 ACT 2 [1]	Unclear	Low	Low	Low	Low
NCT01551290	Unclear	Unclear	Low	Low	Low
Jiang 2015 [2]	Unclear	Low	Low	Low	Low
Kobayashi 2016 [3]	Low	Low	Low	Low	Low
Reinisch 2011 ULTRA 1 [6]	Unclear	Low	Low	Low	Low
Sandborn 2012 ULTRA 2 [7]	Unclear	Low	Low	High	Low
Suzuki 2014 [8]	Low	Low	Low	Low	Low
Panes 2019 SERENE-UC [5]	Unclear	Unclear	Low	Low	Low

Sandborn 2014 PURSUIT SC [11]	Low	Low	Low	High	Low
Feagan 2013 GEMINI 1 [12]	Low	Low	Low	Low	Low
Sands 2019 VARSITY [9]	Low	Low	Low	High	Low
Motoya 2019 [13]	Unclear	Low	Low	Low	Low
Vermeire 2014 EUCALYPTUS [14]	Unclear	Low	Low	High	Low
Danese 2021 [4] GARDENIA	Low	Low	Low	Low	Low
Peyrin-Biroulet 2021 [15] HICKORY	Low	Low	Low	Low	Low
Rubin 2021 [10] HIBISCUS I	Low	Low	Low	Low	Low
Rubin 2021 [10] HIBISCUS II	Low	Low	Low	Low	Low
Sands 2019 UNIFI [16]	Unclear	Unclear	Low	Low	Low

Sandborn 2012 [17]	Low	Low	Low	Low	Low
Sandborn 2017 OCTAVE 1 [18]	Unclear	Low	Low	Low	Low
Sandborn 2017 OCTAVE 2 [18]	Unclear	Low	Low	Low	Low
Sandborn 2016 TOUCHSTONE [19]	Low	Low	Low	Low	Low
Sandborn 2021 TRUE NORTH [20]	Unclear	Low	Low	Low	Low
Feagan 2021 SELECTION [21]	Unclear	Low	Low	Low	Low
Feagan 2021 SELECTION [21]	Unclear	Low	Low	Low	Low
Vermeire U-ACHIEVE [22]	Unclear	Unclear	Low	Unclear	Unclear
Vermeire U- ACCOMPLISH [22]	Unclear	Unclear	Low	Unclear	Unclear

Supplementary Table 5. Reported Endpoints in Randomised Controlled Trials of Biological Therapies or Small Molecules in Moderate to Severe UC.

Study	Clinical Remission	Endoscopic Improvement	Clinical Response
Rutgeerts 2005 ACT 1 [1]	Mayo score ≤ 2 , with no subscore >1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Rutgeerts 2005 ACT 2 [1]	Mayo score ≤ 2 , with no subscore >1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
NCT01551290	Mayo score ≤ 2 , with no subscore >1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Jiang 2015 [2]	Mayo score ≤ 2 , with no subscore >1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Kobayashi 2016 [3]	Mayo score ≤ 2 , with no subscore >1	Mayo endoscopic subscore of ≤ 1	Not specified

Reinisch 2011 ULTRA 1 [6]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Sandborn 2012 ULTRA 2 [7]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Suzuki 2014 [8]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Panes 2019 SERENE-UC [5]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Sandborn 2014 PURSUIT SC [11]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Feagan 2013 GEMINI 1 [12]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1

Sands 2019 VARSITY [9]	Mayo score ≤ 2 , with no subscore > 1	Not reported during induction phase	Decrease in Mayo score by ≥ 2 and 25% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Motoya 2019 [13]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Vermeire 2014 EUCALYPTUS [14]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Danese 2021 [4] GARDENIA	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Peyrin-Biroulet 2021 [15] HICKORY	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Rubin 2021 [10] HIBISCUS I	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding score of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1

Rubin 2021 [10] HIBISCUS II	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Sands 2019 UNIFI [16]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Sandborn 2012 [17]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of 0	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Sandborn 2017 OCTAVE 1 [18]	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Sandborn 2017 OCTAVE 2 [18]	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Sandborn 2016 TOUCHSTONE [19]	Mayo score ≤ 2 , with no subscore > 1	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1

Sandborn 2021 TRUE NORTH [20]	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and decrease in rectal bleeding subscore of ≥ 1
Feagan 2021 SELECTION [21]	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Feagan 2021 SELECTION [21]	Mayo score ≤ 2 , with no subscore > 1 and a rectal bleeding subscore of 0	Mayo endoscopic subscore of ≤ 1	Decrease in Mayo score by ≥ 3 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Vermeire U-ACHIEVE [22]	Adapted Mayo score ≤ 2 , with stool frequency subscore ≤ 1 , rectal bleeding subscore of 0, and endoscopic subscore ≤ 1	Mayo endoscopic subscore of ≤ 1	Decrease in adapted Mayo score by ≥ 2 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1
Vermeire U-ACCOMPLISH [22]	Adapted Mayo score ≤ 2 , with stool frequency subscore ≤ 1 , rectal bleeding subscore of 0, and endoscopic subscore ≤ 1	Mayo endoscopic subscore of ≤ 1	Decrease in adapted Mayo score by ≥ 2 and 30% and a decrease in rectal bleeding subscore of ≥ 1 or an absolute subscore for rectal bleeding of 0 or 1

Supplementary Table 6. League Table for Failure to Achieve Clinical Remission: Patients Naïve to Anti-TNF-α Therapies.

UPA 45mg															0.69 (0.61- 0.78)
0.89 (0.77- 1.02)	IFX 5mg/kg	0.91 (0.78- 1.05)									0.85 (0.72- 0.99)				0.78 (0.72- 0.85)
0.86 (0.73- 1.01)	0.97 (0.85- 1.10)	IFX 10mg/kg													0.78 (0.69- 0.88)
0.82 (0.70- 0.96)	0.93 (0.82- 1.05)	0.96 (0.82- 1.11)	VED 300mg							0.95 (0.82- 1.09)					0.83 (0.73- 0.94)
0.82 (0.69- 0.98)	0.93 (0.80- 1.08)	0.96 (0.81- 1.14)	1.00 (0.85- 1.18)	OZA 1mg											0.83 (0.73- 0.95)
0.80 (0.66- 0.96)	0.90 (0.77- 1.06)	0.93 (0.77- 1.12)	0.97 (0.82- 1.16)	0.97 (0.80- 1.17)	FIL 200mg								0.91 (0.79- 1.04)		0.86 (0.75- 0.99)
0.79 (0.67- 0.94)	0.90 (0.77- 1.04)	0.93 (0.78- 1.10)	0.97 (0.83- 1.13)	0.96 (0.81- 1.15)	0.99 (0.82- 1.20)	GOL 400/200mg			0.98 (0.86- 1.11)						0.87 (0.77- 0.98)
0.79 (0.67- 0.94)	0.90 (0.78- 1.03)	0.92 (0.78- 1.09)	0.97 (0.83- 1.12)	0.96 (0.81- 1.14)	0.99 (0.83- 1.19)	1.00 (0.84- 1.18)	TOF 10mg								0.87 (0.77- 0.97)
0.78 (0.65- 0.94)	0.88 (0.75- 1.04)	0.91 (0.76- 1.10)	0.95 (0.80- 1.13)	0.95 (0.78- 1.15)	0.98 (0.80- 1.20)	0.98 (0.81- 1.19)	0.99 (0.82- 1.19)	UST 130mg				0.97 (0.83- 1.13)			0.88 (0.76- 1.02)
0.78 (0.65- 0.92)	0.88 (0.76- 1.01)	0.91 (0.77- 1.07)	0.95 (0.81- 1.10)	0.94 (0.79- 1.12)	0.97 (0.81- 1.17)	0.98 (0.86- 1.11)	0.98 (0.83- 1.16)	0.99 (0.82- 1.20)	GOL 200/100mg						0.89 (0.79- 1.00)
0.77 (0.67- 0.88)	0.87 (0.79- 0.96)	0.90 (0.79- 1.02)	0.94 (0.85- 1.04)	0.93 (0.81- 1.08)	0.97 (0.83- 1.13)	0.97 (0.85- 1.11)	0.97 (0.85- 1.11)	0.99 (0.84- 1.16)	0.99 (0.87- 1.14)	ADA 160/80mg	0.94 (0.84- 1.06)			0.97 (0.87 -1.08)	0.90 (0.84- 0.96)
0.76 (0.66- 0.88)	0.86 (0.78- 0.95)	0.89 (0.77- 1.02)	0.93 (0.82- 1.05)	0.93 (0.79- 1.08)	0.96 (0.81- 1.13)	0.96 (0.83- 1.12)	0.96 (0.83- 1.11)	0.98 (0.83- 1.16)	0.98 (0.85- 1.14)	0.99 (0.90- 1.09)	ETR 105mg				0.87 (0.78- 0.96)

0.76 (0.63-0.91)	0.86 (0.73-1.01)	0.89 (0.74-1.06)	0.92 (0.78-1.10)	0.92 (0.76-1.12)	0.95 (0.78-1.16)	0.96 (0.79-1.15)	0.96 (0.80-1.15)	0.97 (0.83-1.13)	0.98 (0.81-1.18)	0.98 (0.84-1.15)	0.99 (0.84-1.17)	UST 6mg/kg			0.91 (0.79-1.04)
0.73 (0.61-0.87)	0.82 (0.70-0.96)	0.85 (0.71-1.01)	0.88 (0.75-1.04)	0.88 (0.73-1.06)	0.91 (0.79-1.04)	0.91 (0.76-1.10)	0.92 (0.77-1.09)	0.93 (0.76-1.13)	0.94 (0.78-1.12)	0.94 (0.81-1.09)	0.95 (0.81-1.12)	0.96 (0.79-1.16)	FIL 100mg		0.95 (0.83-1.08)
0.72 (0.62-0.84)	0.81 (0.72-0.92)	0.84 (0.73-0.98)	0.88 (0.77-1.00)	0.87 (0.75-1.03)	0.90 (0.76-1.07)	0.91 (0.78-1.06)	0.91 (0.78-1.06)	0.92 (0.78-1.10)	0.93 (0.80-1.08)	0.94 (0.85-1.03)	0.94 (0.84-1.07)	0.95 (0.80-1.13)	0.99 (0.84-1.17)	ADA 80/40mg	0.98 (0.89 - 1.09)
0.69 (0.61-0.78)	0.78 (0.72-0.84)	0.80 (0.71-0.90)	0.84 (0.76-0.92)	0.83 (0.73-0.95)	0.86 (0.75-0.99)	0.87 (0.77-0.98)	0.87 (0.77-0.97)	0.88 (0.76-1.02)	0.89 (0.79-1.00)	0.89 (0.84-0.95)	0.90 (0.83-0.98)	0.91 (0.79-1.04)	0.95 (0.83-1.08)	0.95 (0.87-1.05)	PLA

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, GOL; golimumab, IFX; infliximab, TOF; tofacitinib, OZA; ozanimod, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab.

Supplementary Table 7. League Table for Failure to Achieve Clinical Remission: Patients Exposed to Anti-TNF- α Therapies Previously.

UPA 45mg										0.78 (0.72-0.85)
0.89 (0.78-1.01)	UST 6mg/kg		0.98 (0.88-1.09)							0.88 (0.80-0.97)
0.88 (0.80-0.98)	0.99 (0.89-1.12)	TOF 10mg								0.88 (0.83-0.94)
0.87 (0.77-0.98)	0.98 (0.88-1.09)	0.99 (0.88-1.11)	UST 130mg							0.90 (0.82-0.98)
0.86 (0.77-0.95)	0.96 (0.85-1.09)	0.97 (0.88-1.07)	0.98 (0.87-1.11)	ETR 105mg						0.91 (0.85-0.98)
0.83 (0.74-0.93)	0.93 (0.82-1.06)	0.94 (0.85-1.04)	0.95 (0.84-1.08)	0.97 (0.87-1.08)	VED 300mg				0.88 (0.75-1.04)	0.96 (0.88-1.05)
0.83 (0.73-0.93)	0.93 (0.81-1.06)	0.94 (0.84-1.05)	0.95 (0.83-1.08)	0.97 (0.86-1.09)	1.00 (0.88-1.13)	FIL 200mg		0.96 (0.88-1.05)		0.94 (0.86-1.04)
0.83 (0.72-0.95)	0.93 (0.81-1.08)	0.94 (0.83-1.06)	0.95 (0.82-1.10)	0.97 (0.85-1.10)	1.00 (0.87-1.14)	1.00 (0.87-1.15)	OZA 1mg			0.94 (0.85-1.05)
0.79 (0.71-0.90)	0.90 (0.79-1.02)	0.90 (0.81-1.00)	0.91 (0.80-1.04)	0.93 (0.83-1.04)	0.96 (0.85-1.08)	0.96 (0.88-1.05)	0.96 (0.84-1.11)	FIL 100mg		0.98 (0.90-1.07)
0.78 (0.69-0.88)	0.88 (0.76-1.00)	0.88 (0.78-0.99)	0.89 (0.78-1.02)	0.91 (0.80-1.03)	0.94 (0.84-1.04)	0.94 (0.82-1.07)	0.94 (0.81-1.09)	0.98 (0.86-1.11)	ADA 160/80mg	0.98 (0.87-1.09)
0.78 (0.72-0.85)	0.88 (0.80-0.97)	0.88 (0.83-0.94)	0.90 (0.82-0.98)	0.91 (0.85-0.98)	0.94 (0.87-1.02)	0.94 (0.86-1.04)	0.94 (0.85-1.05)	0.98 (0.90-1.07)	1.00 (0.91-1.10)	PLA

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, TOF; tofacitinib, OZA; ozanimod, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab.

Supplementary Table 8. League Table for Failure to Achieve Endoscopic Improvement: Patients Naïve to Anti-TNF-α Therapies.

UPA 45mg													0.58 (0.51- 0.66)	
0.96 (0.77- 1.18)	IFX 10mg/kg	1.02 (0.82- 1.28)											0.59 (0.49- 0.70)	
0.88 (0.75- 1.03)	0.92 (0.76- 1.11)	IFX 5mg/kg				0.80 (0.67- 0.95)							0.66 (0.59- 0.74)	
0.82 (0.67- 1.02)	0.86 (0.67- 1.10)	0.94 (0.77- 1.15)	VED 300mg										0.70 (0.59- 0.84)	
0.75 (0.63- 0.89)	0.79 (0.64- 0.97)	0.85 (0.73- 1.00)	0.91 (0.74- 1.12)	GOL 400/200mg				0.94 (0.82- 1.07)					0.77 (0.69- 0.87)	
0.72 (0.61- 0.87)	0.76 (0.61- 0.94)	0.82 (0.70- 0.97)	0.88 (0.71- 1.09)	0.96 (0.81- 1.15)	TOF 10mg								0.80 (0.71- 0.91)	
0.71 (0.61- 0.84)	0.75 (0.61- 0.91)	0.81 (0.72- 0.92)	0.87 (0.71- 1.06)	0.95 (0.81- 1.11)	0.99 (0.83- 1.16)	ETR 105mg				0.96 (0.84- 1.09)			0.81 (0.71- 0.93)	
0.71 (0.58- 0.85)	0.74 (0.59- 0.93)	0.80 (0.67- 0.96)	0.86 (0.68- 1.07)	0.94 (0.78- 1.13)	0.97 (0.80- 1.18)	0.99 (0.83- 1.19)	UST 130mg				0.97 (0.82- 1.15)		0.82 (0.71- 0.95)	
0.71 (0.60- 0.83)	0.74 (0.60- 0.91)	0.80 (0.69- 0.93)	0.86 (0.70- 1.05)	0.94 (0.82- 1.07)	0.97 (0.82- 1.16)	0.99 (0.85- 1.16)	1.00 (0.83- 1.20)	GOL 200/100mg					0.82 (0.74- 0.92)	
0.70 (0.59- 0.83)	0.73 (0.59- 0.90)	0.79 (0.68- 0.93)	0.85 (0.68- 1.05)	0.93 (0.78- 1.10)	0.96 (0.81- 1.15)	0.98 (0.83- 1.15)	0.99 (0.82- 1.20)	0.99 (0.84- 1.17)	FIL 200mg			0.90 (0.80- 1.01)	0.83 (0.73- 0.94)	
0.70 (0.60- 0.81)	0.73 (0.60- 0.88)	0.79 (0.70- 0.90)	0.84 (0.69- 1.02)	0.92 (0.80- 1.07)	0.96 (0.82- 1.12)	0.97 (0.87- 1.09)	0.99 (0.83- 1.17)	0.99 (0.85- 1.14)	1.00 (0.86- 1.16)	ADA 160/80mg			0.88 (0.75- 1.03)	0.83 (0.76- 0.91)
0.69 (0.57- 0.83)	0.72 (0.57- 0.90)	0.78 (0.66- 0.93)	0.83 (0.67- 1.04)	0.91 (0.76- 1.10)	0.95 (0.78- 1.15)	0.96 (0.81- 1.15)	0.97 (0.82- 1.15)	0.97 (0.81- 1.17)	0.98 (0.81- 1.19)	0.99 (0.84- 1.17)	UST 6mg/kg		0.85 (0.73- 0.97)	

0.63 (0.53-0.74)	0.66 (0.53-0.81)	0.71 (0.61-0.83)	0.76 (0.62-0.93)	0.83 (0.71-0.98)	0.87 (0.73-1.03)	0.88 (0.75-1.03)	0.89 (0.74-1.07)	0.89 (0.76-1.04)	0.90 (0.80-1.01)	0.90 (0.78-1.04)	0.91 (0.76-1.09)	FIL 100mg		0.93 (0.83-1.03)
0.60 (0.50-0.72)	0.63 (0.50-0.78)	0.68 (0.58-0.81)	0.73 (0.59-0.91)	0.80 (0.67-0.96)	0.83 (0.69-1.00)	0.84 (0.72-0.99)	0.85 (0.70-1.04)	0.85 (0.72-1.02)	0.86 (0.72-1.03)	0.87 (0.75-1.00)	0.88 (0.72-1.07)	0.96 (0.81-1.14)	ADA 80/40mg	0.97 (0.84-1.12)
0.58 (0.51-0.66)	0.61 (0.51-0.72)	0.66 (0.60-0.73)	0.70 (0.59-0.84)	0.77 (0.69-0.87)	0.80 (0.71-0.91)	0.81 (0.73-0.91)	0.82 (0.71-0.95)	0.82 (0.74-0.92)	0.83 (0.73-0.94)	0.83 (0.76-0.91)	0.85 (0.73-0.97)	0.93 (0.83-1.03)	0.96 (0.84-1.10)	PLA

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, GOL; golimumab, IFX; infliximab, TOF; tofacitinib, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab.

Supplementary Table 9. League Table for Failure to Achieve Endoscopic Improvement: Patients Exposed to Anti-TNF- α Therapies

Previously.

UPA 45mg									0.71 (0.65-0.77)
0.86 (0.77-0.97)	TOF 10mg								0.82 (0.76-0.89)
0.84 (0.73-0.96)	0.97 (0.86-1.11)	UST 6mg/kg		0.96 (0.86-1.09)					0.84 (0.76-0.94)
0.83 (0.69-0.98)	0.96 (0.81-1.13)	0.98 (0.82-1.18)	ETR 105mg						0.86 (0.74-1.00)
0.81 (0.71-0.92)	0.94 (0.83-1.07)	0.96 (0.86-1.09)	0.98 (0.82-1.18)	UST 130mg					0.87 (0.79-0.97)
0.79 (0.69-0.89)	0.92 (0.81-1.03)	0.94 (0.82-1.08)	0.95 (0.80-1.14)	0.97 (0.85-1.12)	FIL 200mg		0.95 (0.87-1.04)		0.90 (0.82-0.99)
0.75 (0.63-0.90)	0.87 (0.73-1.04)	0.89 (0.74-1.08)	0.91 (0.73-1.13)	0.93 (0.77-1.11)	0.95 (0.80-1.14)	VED 300mg			0.94 (0.81-1.10)
0.75 (0.66-0.85)	0.87 (0.78-0.98)	0.89 (0.78-1.02)	0.91 (0.76-1.08)	0.93 (0.81-1.06)	0.95 (0.87-1.04)	1.00 (0.84-1.19)	FIL 100mg		0.94 (0.86-1.03)
0.73 (0.59-0.89)	0.84 (0.69-1.03)	0.86 (0.70-1.07)	0.88 (0.69-1.11)	0.90 (0.73-1.10)	0.92 (0.75-1.13)	0.97 (0.76-1.23)	0.97 (0.79-1.18)	ADA 160/80mg	0.97 (0.81-1.17)
0.71 (0.65-0.77)	0.82 (0.76-0.89)	0.84 (0.76-0.94)	0.86 (0.74-1.00)	0.87 (0.79-0.97)	0.90 (0.82-0.99)	0.94 (0.81-1.10)	0.94 (0.86-1.03)	0.97 (0.81-1.17)	PLA

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, TOF; tofacitinib, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab.

Supplementary Table 10. League Table for Failure to Achieve Clinical Response: Patients Naïve to Anti-TNF-α Therapies.

UPA 45mg														0.30 (0.23-0.40)
0.58 (0.38-0.90)	UST 6mg/kg					0.79 (0.55-1.13)								0.52 (0.37-0.72)
0.56 (0.38-0.81)	0.95 (0.64-1.42)	IFX 10mg/kg	1.05 (0.79-1.40)											0.52 (0.41-0.67)
0.54 (0.39-0.75)	0.93 (0.65-1.33)	0.97 (0.76-1.26)	IFX 5mg/kg							0.81 (0.60-1.08)				0.54 (0.45-0.64)
0.50 (0.35-0.71)	0.86 (0.59-1.25)	0.90 (0.67-1.21)	0.92 (0.72-1.17)	VED 300mg								0.60 (0.45-0.79)		0.70 (0.55-0.89)
0.48 (0.31-0.73)	0.83 (0.53-1.29)	0.87 (0.59-1.27)	0.89 (0.63-1.26)	0.96 (0.67-1.38)	FIL 200mg						0.82 (0.61-1.11)			0.63 (0.46-0.86)
0.46 (0.30-0.70)	0.79 (0.55-1.13)	0.83 (0.57-1.21)	0.85 (0.61-1.20)	0.92 (0.65-1.32)	0.96 (0.62-1.47)	UST 130mg								0.65 (0.49-0.88)
0.45 (0.31-0.65)	0.77 (0.51-1.15)	0.80 (0.57-1.12)	0.82 (0.62-1.10)	0.89 (0.66-1.21)	0.93 (0.63-1.37)	0.97 (0.66-1.42)	GOL 400/200mg		0.92 (0.71-1.18)					0.68 (0.53-0.86)
0.42 (0.21-0.84)	0.72 (0.36-1.47)	0.76 (0.39-1.48)	0.78 (0.41-1.49)	0.84 (0.44-1.63)	0.88 (0.43-1.76)	0.91 (0.45-1.83)	0.94 (0.48-1.85)	TOF 10mg						0.72 (0.38-1.35)
0.41 (0.28-0.59)	0.70 (0.47-1.05)	0.74 (0.53-1.03)	0.76 (0.57-1.00)	0.82 (0.61-1.11)	0.85 (0.58-1.26)	0.89 (0.61-1.30)	0.92 (0.71-1.18)	0.97 (0.50-1.90)	GOL 200/100mg					0.74 (0.58-0.93)
0.40 (0.28-0.56)	0.68 (0.47-0.99)	0.71 (0.53-0.95)	0.73 (0.60-0.89)	0.79 (0.62-1.02)	0.82 (0.58-1.18)	0.86 (0.60-1.22)	0.89 (0.66-1.20)	0.94 (0.49-1.81)	0.97 (0.72-1.30)	ETR 105mg		0.97 (0.77-1.22)		0.81 (0.64-1.03)
0.39 (0.26-0.59)	0.68 (0.44-1.05)	0.71 (0.49-1.03)	0.73 (0.52-1.01)	0.79 (0.56-1.12)	0.82 (0.61-1.11)	0.86 (0.56-1.30)	0.88 (0.61-1.29)	0.94 (0.47-1.87)	0.96 (0.66-1.40)	1.00 (0.71-1.40)	FIL 100mg			0.77 (0.57-1.02)

0.37 (0.27-0.51)	0.64 (0.45-0.91)	0.67 (0.51-0.87)	0.69 (0.56-0.83)	0.74 (0.61-0.91)	0.77 (0.55-1.08)	0.80 (0.58-1.12)	0.83 (0.63-1.09)	0.88 (0.46-1.68)	0.91 (0.69-1.19)	0.94 (0.78-1.13)	0.94 (0.68-1.29)	ADA 160/80mg	0.90 (0.71-1.14)	0.78 (0.67-0.90)
0.34 (0.24-0.48)	0.58 (0.40-0.86)	0.61 (0.45-0.83)	0.63 (0.49-0.81)	0.68 (0.52-0.89)	0.71 (0.49-1.02)	0.74 (0.51-1.06)	0.76 (0.56-1.04)	0.81 (0.42-1.56)	0.83 (0.61-1.13)	0.86 (0.66-1.11)	0.86 (0.60-1.23)	0.91 (0.74-1.13)	ADA 80/40mg	0.88 (0.71-1.10)
0.30 (0.23-0.40)	0.52 (0.37-0.72)	0.54 (0.43-0.69)	0.56 (0.48-0.65)	0.60 (0.50-0.73)	0.63 (0.46-0.86)	0.65 (0.49-0.88)	0.68 (0.53-0.86)	0.72 (0.38-1.35)	0.74 (0.58-0.93)	0.76 (0.64-0.91)	0.77 (0.57-1.02)	0.81 (0.71-0.93)	0.89 (0.73-1.09)	PLA

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, GOL; golimumab, IFX; infliximab, TOF; tofacitinib, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab.

Supplementary Table 11. League Table for Failure to Achieve Clinical Response: Patients Exposed to Anti-TNF- α Therapies Previously.

UPA 45mg									0.39 (0.30-0.51)
0.69 (0.45-1.06)	FIL 200mg				0.73 (0.52-1.02)				0.57 (0.41-0.79)
0.68 (0.44-1.05)	0.98 (0.60-1.59)	UST 6mg/kg		0.78 (0.54-1.12)					0.58 (0.41-0.83)
0.66 (0.26-1.66)	0.95 (0.37-2.45)	0.97 (0.37-2.53)	TOF 10mg						0.60 (0.25-1.46)
0.53 (0.34-0.81)	0.76 (0.48-1.22)	0.78 (0.54-1.12)	0.80 (0.31-2.08)	UST 130mg					0.75 (0.53-1.05)
0.51 (0.34-0.76)	0.73 (0.52-1.02)	0.75 (0.47-1.20)	0.77 (0.30-1.98)	0.96 (0.61-1.52)	FIL 100mg				0.78 (0.57-1.07)
0.50 (0.32-0.76)	0.72 (0.45-1.15)	0.74 (0.45-1.20)	0.76 (0.29-1.96)	0.94 (0.59-1.52)	0.98 (0.62-1.56)	ETR 105mg			0.79 (0.57-1.11)
0.48 (0.34-0.69)	0.70 (0.46-1.04)	0.71 (0.47-1.09)	0.73 (0.29-1.84)	0.91 (0.61-1.38)	0.95 (0.64-1.41)	0.97 (0.64-1.46)	VED 300mg	0.66 (0.44-1.00)	0.89 (0.68-1.15)
0.39 (0.26-0.57)	0.56 (0.36-0.86)	0.57 (0.36-0.90)	0.59 (0.23-1.49)	0.73 (0.47-1.14)	0.76 (0.50-1.17)	0.77 (0.50-1.20)	0.80 (0.59-1.08)	ADA 160/80mg	0.89 (0.62-1.26)
0.39 (0.30-0.51)	0.57 (0.41-0.79)	0.58 (0.41-0.83)	0.60 (0.25-1.46)	0.75 (0.53-1.05)	0.78 (0.57-1.07)	0.79 (0.57-1.11)	0.82 (0.65-1.04)	1.02 (0.77-1.36)	PLA

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, TOF; tofacitinib, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab.

Supplementary Table 12. League Table for Total Adverse Events.

UST 130mg							0.86 (0.73-1.03)						0.82 (0.69-0.97)		
0.97 (0.78-1.20)	FIL 100mg		0.94 (0.84-1.05)				0.89 (0.78-1.02)								
0.95 (0.78-1.16)	0.99 (0.84-1.16)	VED 300mg					0.90 (0.76-1.07)	0.91 (0.82-1.00)							
0.91 (0.73-1.13)	0.94 (0.84-1.05)	0.95 (0.81-1.12)	FIL 200mg				0.95 (0.84-1.09)								
0.89 (0.72-1.10)	0.92 (0.77-1.10)	0.93 (0.80-1.09)	0.98 (0.82-1.17)	TOF 10mg			0.97 (0.86-1.10)								
0.88 (0.72-1.06)	0.91 (0.78-1.06)	0.92 (0.81-1.05)	0.97 (0.83-1.13)	0.99 (0.85-1.15)	ETR 105mg		0.96 (0.85-1.09)	0.92 (0.75-1.12)	1.01 (0.91-1.13)						
0.88 (0.68-1.14)	0.91 (0.72-1.15)	0.92 (0.74-1.15)	0.97 (0.77-1.23)	0.99 (0.79-1.25)	1.00 (0.81-1.24)	GOL 200/100mg	0.98 (0.81-1.19)			0.96 (0.79-1.17)					
0.86 (0.73-1.03)	0.89 (0.78-1.02)	0.91 (0.82-1.00)	0.95 (0.84-1.09)	0.97 (0.86-1.10)	0.98 (0.91-1.07)	0.98 (0.81-1.19)	PLA	1.00 (0.94-1.07)	0.99 (0.93-1.05)	0.98 (0.81-1.19)	0.96 (0.80-1.16)	0.96 (0.90-1.03)	0.95 (0.81-1.11)	0.88 (0.74-1.04)	0.64 (0.48-0.86)
0.86 (0.72-1.04)	0.89 (0.77-1.03)	0.90 (0.83-0.99)	0.95 (0.82-1.10)	0.97 (0.85-1.11)	0.98 (0.89-1.08)	0.98 (0.80-1.20)	1.00 (0.94-1.06)	ADA 160/80mg						0.88 (0.75-1.05)	
0.86 (0.72-1.03)	0.89 (0.77-1.03)	0.90 (0.81-1.01)	0.95 (0.82-1.10)	0.97 (0.85-1.11)	0.98 (0.90-1.07)	0.98 (0.80-1.20)	1.00 (0.94-1.06)	1.00 (0.92-1.09)	IFX 5mg/kg			0.98 (0.92-1.05)			
0.85 (0.65-1.10)	0.88 (0.69-1.11)	0.89 (0.72-1.10)	0.93 (0.74-1.18)	0.95 (0.76-1.20)	0.96 (0.78-1.19)	0.96 (0.79-1.17)	0.98 (0.81-1.19)	0.98 (0.80-1.20)	0.98 (0.80-1.20)	GOL 400/200mg					
0.83 (0.65-1.07)	0.86 (0.69-1.08)	0.87 (0.71-1.08)	0.92 (0.73-1.15)	0.94 (0.75-1.17)	0.95 (0.77-1.16)	0.94 (0.72-1.24)	0.96 (0.80-1.16)	0.96 (0.79-1.17)	0.97 (0.80-1.17)	0.98 (0.75-1.28)	OZA 1mg				

0.84 (0.70-1.01)	0.87 (0.75-1.01)	0.88 (0.78-0.99)	0.93 (0.80-1.08)	0.95 (0.82-1.09)	0.96 (0.87-1.06)	0.95 (0.78-1.17)	0.97 (0.91-1.04)	0.98 (0.89-1.07)	0.98 (0.91-1.04)	0.99 (0.81-1.22)	1.01 (0.83-1.23)	IFX 10mg/kg			
0.82 (0.69-0.97)	0.85 (0.69-1.04)	0.86 (0.71-1.03)	0.90 (0.74-1.11)	0.92 (0.75-1.12)	0.93 (0.78-1.11)	0.93 (0.72-1.19)	0.95 (0.81-1.11)	0.95 (0.80-1.12)	0.95 (0.80-1.12)	0.97 (0.75-1.24)	0.98 (0.77-1.26)	0.97 (0.82-1.16)	UST 6mg/kg		
0.76 (0.60-0.95)	0.78 (0.64-0.96)	0.79 (0.67-0.94)	0.83 (0.68-1.02)	0.85 (0.70-1.03)	0.86 (0.73-1.02)	0.86 (0.67-1.10)	0.88 (0.75-1.02)	0.88 (0.76-1.02)	0.88 (0.75-1.03)	0.89 (0.70-1.14)	0.91 (0.72-1.15)	0.90 (0.76-1.06)	0.92 (0.74-1.15)	ADA 80/40mg	
0.55 (0.39-0.78)	0.57 (0.42-0.79)	0.58 (0.43-0.79)	0.61 (0.44-0.84)	0.62 (0.45-0.86)	0.63 (0.47-0.85)	0.63 (0.44-0.89)	0.64 (0.48-0.86)	0.64 (0.48-0.87)	0.64 (0.48-0.87)	0.65 (0.46-0.93)	0.67 (0.47-0.94)	0.66 (0.49-0.89)	0.68 (0.49-0.94)	0.73 (0.53-1.02)	UPA 45mg

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, TOF; tofacitinib, OZA; ozanimod, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab

Supplementary Table 13. League Table for Serious Adverse Events.

GOL 200/100mg				0.82 (0.34- 1.95)										0.45 (0.21- 0.97)	
0.90 (0.32- 2.56)	UST 6mg/kg		0.92 (0.41- 2.05)											0.50 (0.25- 1.01)	
0.92 (0.30- 2.79)	1.02 (0.35- 2.96)	ADA 80/40mg						0.80 (0.32- 1.97)						0.44 (0.19- 1.01)	
0.83 (0.29- 2.32)	0.92 (0.41- 2.05)	0.90 (0.31- 2.59)	UST 130mg											0.54 (0.27- 1.08)	
0.82 (0.34- 1.95)	0.91 (0.33- 2.49)	0.89 (0.30- 2.62)	0.99 (0.37- 2.67)	GOL 400/200mg										0.55 (0.27- 1.13)	
0.80 (0.29- 2.19)	0.89 (0.34- 2.32)	0.88 (0.31- 2.45)	0.97 (0.38- 2.49)	0.98 (0.37- 2.58)	UPA 45mg									0.56 (0.29- 1.07)	
0.75 (0.31- 1.81)	0.83 (0.36- 1.90)	0.82 (0.34- 1.96)	0.91 (0.40- 2.03)	0.92 (0.40- 2.12)	0.93 (0.43- 2.03)	VED 300mg		0.80 (0.55- 1.17)						0.61 (0.28- 1.33)	
0.71 (0.27- 1.85)	0.79 (0.32- 1.95)	0.77 (0.29- 2.07)	0.86 (0.35- 2.09)	0.87 (0.35- 2.17)	0.88 (0.37- 2.09)	0.95 (0.46- 1.93)	TOF 10mg							0.63 (0.36- 1.12)	
0.60 (0.26- 1.39)	0.67 (0.31- 1.46)	0.66 (0.29- 1.49)	0.73 (0.34- 1.55)	0.74 (0.33- 1.62)	0.75 (0.36- 1.54)	0.80 (0.57- 1.14)	0.85 (0.44- 1.64)	ADA 160/80mg						0.76 (0.53- 1.08)	0.40 (0.16- 1.02)
0.59 (0.26- 1.35)	0.66 (0.31- 1.42)	0.65 (0.28- 1.51)	0.72 (0.34- 1.51)	0.73 (0.33- 1.58)	0.74 (0.36- 1.50)	0.79 (0.48- 1.32)	0.84 (0.44- 1.59)	0.99 (0.64- 1.51)	IFX 5mg/kg	0.97 (0.65- 1.44)				0.77 (0.56- 1.05)	0.63 (0.37- 1.06)
0.59 (0.25- 1.37)	0.65 (0.30- 1.43)	0.64 (0.27- 1.53)	0.71 (0.33- 1.53)	0.72 (0.32- 1.60)	0.73 (0.35- 1.52)	0.78 (0.45- 1.36)	0.83 (0.42- 1.61)	0.97 (0.60- 1.57)	0.99 (0.68- 1.43)	IFX 10mg/kg				0.76 (0.52- 1.09)	
0.48 (0.17- 1.39)	0.53 (0.19- 1.47)	0.52 (0.18- 1.55)	0.58 (0.21- 1.58)	0.59 (0.21- 1.64)	0.60 (0.23- 1.58)	0.64 (0.28- 1.49)	0.68 (0.27- 1.71)	0.80 (0.36- 1.77)	0.81 (0.37- 1.77)	0.82 (0.37- 1.84)	OZA 1mg			0.93 (0.45- 1.93)	

0.48 (0.17-1.34)	0.54 (0.20-1.42)	0.53 (0.19-1.49)	0.58 (0.22-1.52)	0.59 (0.22-1.57)	0.60 (0.24-1.52)	0.64 (0.29-1.42)	0.68 (0.28-1.64)	0.80 (0.38-1.68)	0.81 (0.39-1.68)	0.82 (0.39-1.75)	1.00 (0.37-2.69)	FIL 200mg	0.87 (0.50-1.50)	0.93 (0.48-1.82)	
0.42 (0.15-1.14)	0.47 (0.18-1.21)	0.46 (0.16-1.28)	0.51 (0.20-1.30)	0.51 (0.20-1.35)	0.52 (0.21-1.30)	0.56 (0.26-1.21)	0.59 (0.25-1.40)	0.70 (0.34-1.43)	0.71 (0.35-1.43)	0.72 (0.34-1.49)	0.87 (0.33-2.30)	0.87 (0.50-1.50)	FIL 100mg	1.07 (0.56-2.03)	
0.45 (0.21-0.97)	0.50 (0.25-1.01)	0.49 (0.22-1.09)	0.54 (0.27-1.08)	0.55 (0.27-1.13)	0.56 (0.29-1.07)	0.60 (0.39-0.92)	0.63 (0.36-1.12)	0.74 (0.54-1.03)	0.76 (0.57-1.01)	0.77 (0.54-1.09)	0.93 (0.45-1.93)	0.93 (0.48-1.82)	1.07 (0.56-2.03)	PLA	0.99 (0.56-1.75)
0.38 (0.16-0.90)	0.42 (0.19-0.95)	0.41 (0.17-1.00)	0.46 (0.21-1.01)	0.46 (0.20-1.05)	0.47 (0.22-1.01)	0.51 (0.29-0.89)	0.53 (0.27-1.07)	0.63 (0.39-1.02)	0.64 (0.43-0.95)	0.65 (0.39-1.07)	0.79 (0.34-1.80)	0.79 (0.36-1.71)	0.90 (0.42-1.92)	0.84 (0.57-1.26)	ETR 105mg

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, TOF; tofacitinib, OZA; ozanimod, PLA; placebo, UPA; upadacitinib, UST; ustekinumab, VED; vedolizumab

Supplementary Table 14. League Table for Infections.

VED 300mg		0.88 (0.54- 1.45)								0.84 (0.67- 1.04)				
0.97 (0.58- 1.62)	OZA 1mg	0.93 (0.59- 1.47)												
0.90 (0.71- 1.14)	0.93 (0.59- 1.47)	PLA	1.03 (0.68- 1.56)	0.98 (0.65- 1.47)	0.97 (0.67- 1.39)	0.96 (0.67- 1.36)	0.96 (0.67- 1.38)	1.13 (0.85- 1.51)	0.90 (0.74- 1.09)	0.93 (0.79- 1.10)	0.89 (0.61- 1.32)	0.80 (0.63- 1.02)	0.77 (0.55- 1.09)	0.71 (0.52- 0.97)
0.92 (0.57- 1.49)	0.95 (0.51- 1.77)	1.03 (0.68- 1.56)	GOL 200/100mg	0.95 (0.63- 1.43)										
0.88 (0.55- 1.41)	0.91 (0.49- 1.68)	0.98 (0.65- 1.47)	0.95 (0.63- 1.43)	GOL 400/200mg										
0.87 (0.56- 1.34)	0.90 (0.50- 1.60)	0.97 (0.67- 1.39)	0.94 (0.54- 1.63)	0.99 (0.57- 1.70)	UST 130mg		1.00 (0.70- 1.42)							
0.86 (0.56- 1.32)	0.89 (0.50- 1.58)	0.96 (0.67- 1.36)	0.93 (0.54- 1.60)	0.98 (0.57- 1.68)	0.99 (0.60- 1.64)	FIL 100mg							0.80 (0.61- 1.06)	
0.86 (0.56- 1.33)	0.89 (0.50- 1.60)	0.96 (0.67- 1.38)	0.94 (0.54- 1.62)	0.98 (0.57- 1.70)	1.00 (0.70- 1.42)	1.01 (0.61- 1.67)	UST 6mg/kg							
0.86 (0.63- 1.17)	0.89 (0.54- 1.47)	0.96 (0.78- 1.18)	0.93 (0.59- 1.48)	0.98 (0.62- 1.55)	0.99 (0.65- 1.50)	1.00 (0.66- 1.51)	0.99 (0.65- 1.51)	ETR 105mg	1.13 (0.85- 1.49)	1.08 (0.70- 1.66)				
0.86 (0.64- 1.15)	0.88 (0.54- 1.44)	0.95 (0.80- 1.14)	0.93 (0.59- 1.45)	0.97 (0.62- 1.52)	0.99 (0.66- 1.47)	0.99 (0.67- 1.48)	0.99 (0.66- 1.48)	1.00 (0.80- 1.23)	IFX 5mg/kg			0.91 (0.73- 1.14)		
0.83 (0.68- 1.02)	0.86 (0.53- 1.40)	0.93 (0.80- 1.09)	0.90 (0.58- 1.41)	0.95 (0.61- 1.47)	0.96 (0.65- 1.42)	0.97 (0.66- 1.43)	0.96 (0.65- 1.43)	0.97 (0.76- 1.24)	0.98 (0.78- 1.23)	ADA 160/80mg	0.90 (0.61- 1.33)			
0.78 (0.52- 1.16)	0.80 (0.45- 1.43)	0.86 (0.61- 1.23)	0.84 (0.49- 1.45)	0.88 (0.52- 1.51)	0.89 (0.54- 1.48)	0.90 (0.55- 1.49)	0.90 (0.54- 1.48)	0.90 (0.60- 1.35)	0.91 (0.61- 1.34)	0.93 (0.65- 1.32)	ADA 80/40mg			

0.75 (0.55-1.04)	0.78 (0.47-1.29)	0.84 (0.67-1.04)	0.81 (0.51-1.30)	0.86 (0.54-1.36)	0.87 (0.57-1.32)	0.88 (0.58-1.33)	0.87 (0.57-1.33)	0.88 (0.67-1.15)	0.88 (0.71-1.09)	0.90 (0.69-1.18)	0.97 (0.64-1.47)	IFX 10mg/kg		
0.69 (0.45-1.05)	0.71 (0.40-1.27)	0.77 (0.55-1.09)	0.75 (0.44-1.28)	0.79 (0.46-1.34)	0.80 (0.48-1.31)	0.80 (0.61-1.06)	0.80 (0.49-1.32)	0.80 (0.54-1.20)	0.81 (0.55-1.19)	0.83 (0.57-1.21)	0.89 (0.54-1.46)	0.92 (0.61-1.38)	FIL 200mg	
0.64 (0.43-0.94)	0.66 (0.38-1.14)	0.71 (0.52-0.97)	0.69 (0.41-1.16)	0.73 (0.44-1.21)	0.74 (0.46-1.18)	0.74 (0.47-1.19)	0.74 (0.46-1.18)	0.74 (0.51-1.08)	0.75 (0.52-1.06)	0.77 (0.54-1.08)	0.82 (0.52-1.31)	0.85 (0.58-1.24)	0.92 (0.58-1.47)	TOF 10mg

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

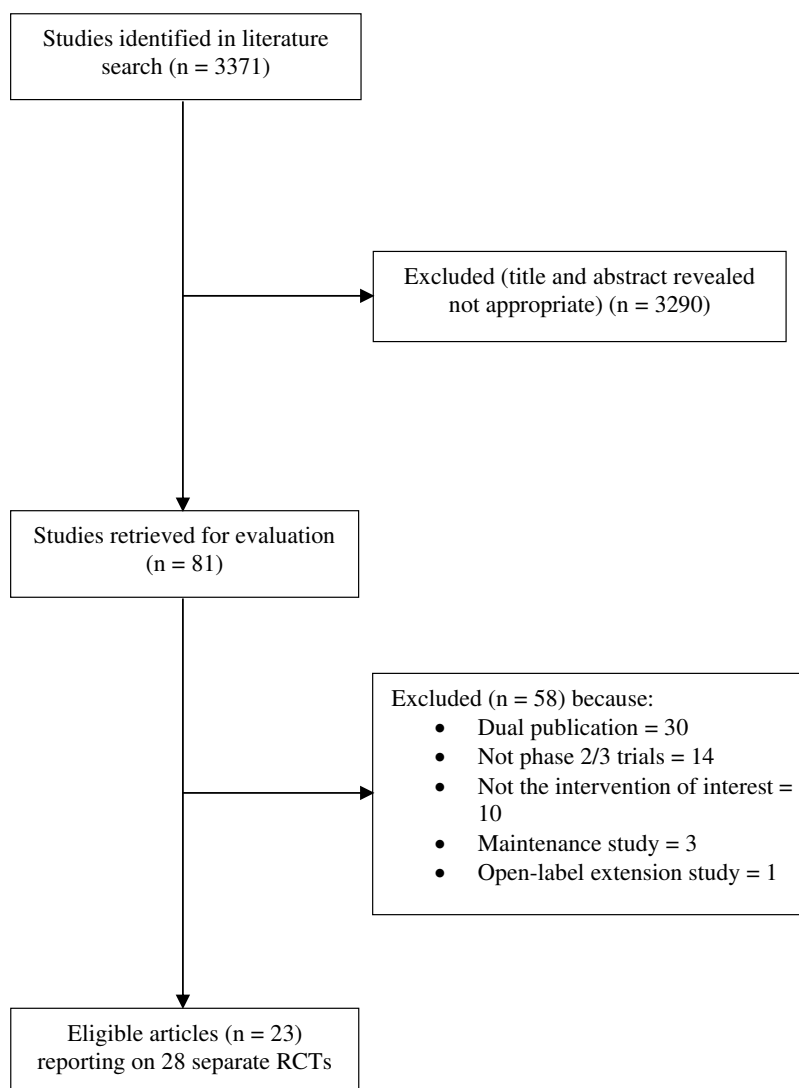
ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, TOF; tofacitinib, OZA; ozanimod, PLA; placebo, UST; ustekinumab, VED; vedolizumab

Supplementary Table 15. League Table for Adverse Events Leading to Withdrawal.

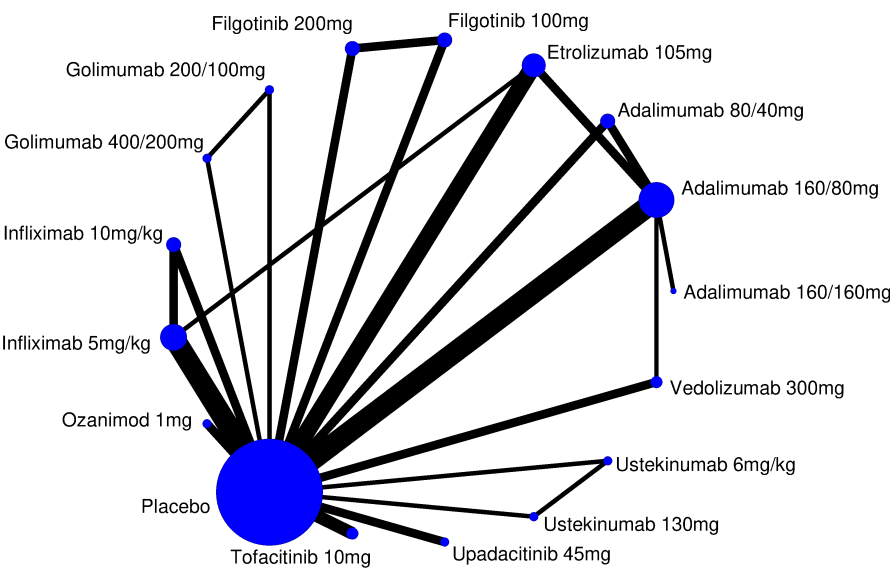
UPA 45mg												0.26 (0.12-0.57)	
0.79 (0.07-9.04)	GOL 400/200mg	1.00 (0.06-16.62)										0.33 (0.03-3.35)	
0.79 (0.07-9.04)	1.00 (0.06-16.62)	GOL 200/100mg										0.33 (0.03-3.35)	
0.37 (0.12-1.15)	0.47 (0.04-5.46)	0.47 (0.04-5.46)	FIL 100mg							0.78 (0.37-1.69)		0.71 (0.31-1.62)	
0.35 (0.12-1.04)	0.44 (0.04-5.05)	0.44 (0.04-5.05)	0.95 (0.31-2.91)	TOF 10mg								0.75 (0.35-1.60)	
0.34 (0.13-0.87)	0.43 (0.04-4.60)	0.43 (0.04-4.60)	0.91 (0.34-2.46)	0.97 (0.38-2.45)	IFX 5mg/kg	0.75 (0.33-1.72)						0.68 (0.37-1.24)	0.87 (0.43-1.74)
0.34 (0.12-0.96)	0.43 (0.04-4.83)	0.43 (0.04-4.83)	0.93 (0.32-2.71)	0.98 (0.35-2.71)	1.01 (0.48-2.12)	IFX 10mg/kg						0.70 (0.34-1.44)	
0.33 (0.10-1.12)	0.42 (0.04-5.09)	0.42 (0.04-5.09)	0.90 (0.26-3.12)	0.95 (0.29-3.15)	0.99 (0.34-2.88)	0.97 (0.31-3.08)	OZA 1mg					0.79 (0.31-1.98)	
0.32 (0.11-0.98)	0.41 (0.04-4.72)	0.41 (0.04-4.72)	0.88 (0.28-2.75)	0.93 (0.31-2.77)	0.96 (0.37-2.45)	0.95 (0.33-2.67)	0.97 (0.29-3.28)	VED 300mg			0.69 (0.32-1.49)	2.00 (0.40-9.94)	
0.29 (0.09-0.94)	0.37 (0.03-4.37)	0.37 (0.03-4.37)	0.79 (0.24-2.63)	0.83 (0.26-2.65)	0.86 (0.31-2.39)	0.85 (0.28-2.58)	0.87 (0.24-3.13)	0.90 (0.30-2.72)	ADA 80/40mg		0.86 (0.34-2.22)	0.91 (0.35-2.34)	
0.29 (0.09-0.89)	0.37 (0.03-4.26)	0.37 (0.03-4.26)	0.78 (0.37-1.69)	0.83 (0.27-2.52)	0.86 (0.32-2.28)	0.85 (0.29-2.45)	0.87 (0.25-2.98)	0.90 (0.29-2.78)	1.00 (0.30-3.29)	FIL 200mg		0.90 (0.40-2.04)	
0.27 (0.11-0.68)	0.35 (0.03-3.66)	0.35 (0.03-3.66)	0.74 (0.29-1.91)	0.78 (0.32-1.90)	0.81 (0.41-1.60)	0.80 (0.35-1.81)	0.82 (0.29-2.31)	0.85 (0.42-1.71)	0.94 (0.39-2.25)	0.94 (0.37-2.40)	ADA 160/80mg	0.91 (0.55-1.48)	0.70 (0.20-2.48)
0.26 (0.12-0.57)	0.33 (0.03-3.35)	0.33 (0.03-3.35)	0.71 (0.31-1.62)	0.75 (0.35-1.60)	0.78 (0.45-1.33)	0.77 (0.39-1.52)	0.79 (0.31-1.98)	0.81 (0.37-1.79)	0.90 (0.37-2.16)	0.90 (0.40-2.04)	0.96 (0.60-1.52)	PLA	0.40 (0.10-1.57)
0.23 (0.08-0.66)	0.30 (0.03-3.31)	0.30 (0.03-3.31)	0.63 (0.22-1.86)	0.67 (0.24-1.87)	0.69 (0.38-1.27)	0.68 (0.28-1.67)	0.70 (0.22-2.23)	0.72 (0.26-1.98)	0.80 (0.27-2.39)	0.81 (0.28-2.35)	0.86 (0.40-1.83)	0.89 (0.45-1.78)	ETR 105mg

Relative risk with 95% confidence intervals in parentheses. Comparisons, column versus row, should be read from left to right, and are ordered relative to their overall efficacy. The intervention in the top left position is ranked as best after the network meta-analysis of direct and indirect effects. Direct comparisons are provided above the drug labels, and indirect comparisons are below. Boxes shaded green denote a statistically significant difference.

ADA; adalimumab, ETR; etrolizumab, FIL; filgotinib, TOF; tofacitinib, OZA; ozanimod, PLA; placebo, UPA; upadacitinib, VED; vedolizumab

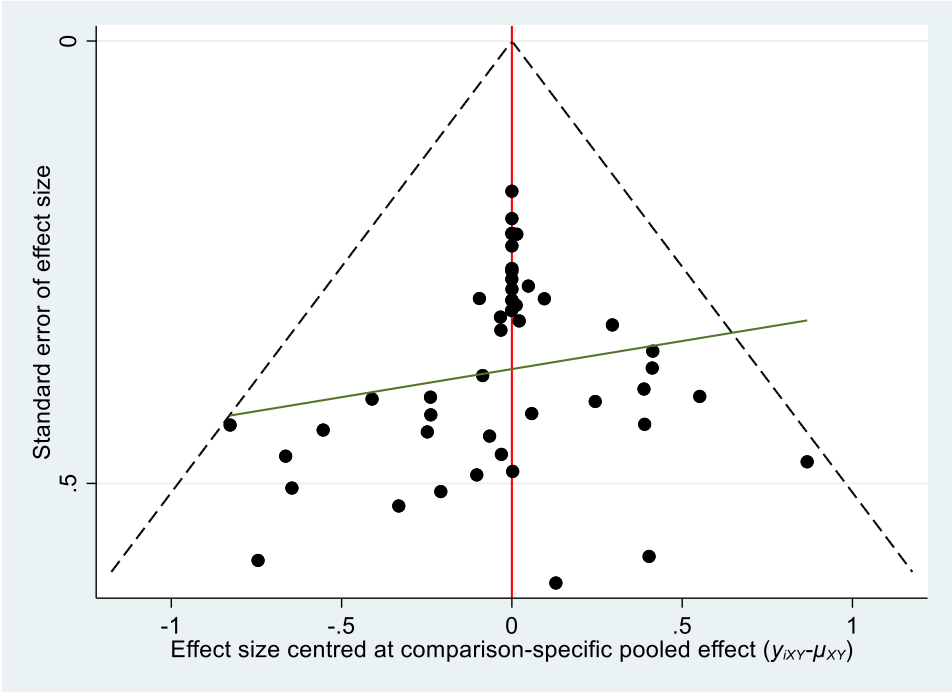
SUPPLEMENTARY FIGURES**Supplementary Figure 1. Flow Diagram of Assessment of Studies Identified in the Systematic Review.**

Supplementary Figure 2. Network Plot for Failure to Achieve Clinical Remission.



Note: Circle (node) size is proportional to the number of study participants assigned to receive each intervention. The line width (connection size) corresponds to the number of studies comparing the individual interventions.

Supplementary Figure 3. Funnel Plot for Failure to Achieve Clinical Remission.

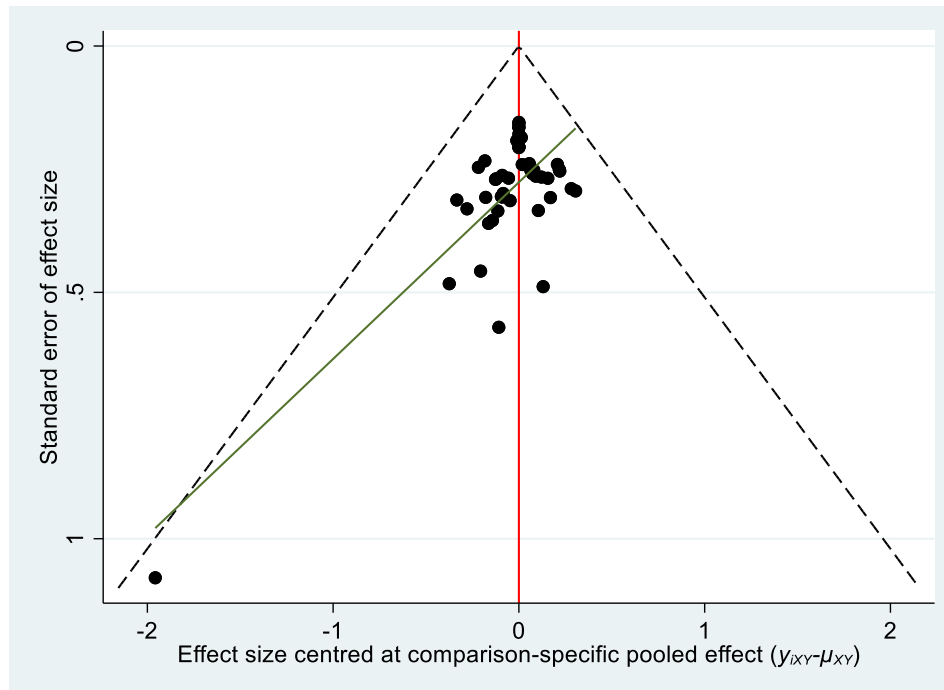


Note: The horizontal axis represents the difference between the comparison-specific and study-specific effect sizes.

Supplementary Figure 4. Network Heat Plot for Failure to Achieve Clinical Remission.



Legend	
Drug	Abbreviation
Adalimumab 160/80mg	Ad160/80
Adalimumab 160/160mg	Ad160/0
Etrolizumab 105mg	Etr105
Infliximab 5mg/kg	Ing5
Vedolizumab 300mg	Vdm300

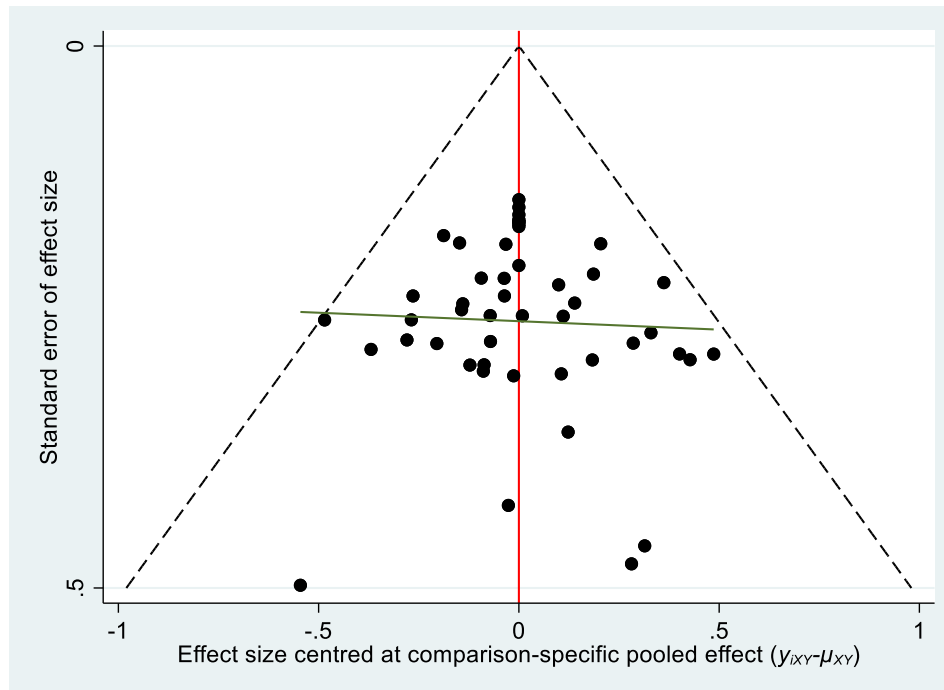
Supplementary Figure 5. Funnel Plot for Failure to Achieve Endoscopic Improvement.

Note: The horizontal axis represents the difference between the comparison-specific and study-specific effect sizes.

Supplementary Figure 6. Network Heat Plot for Failure to Achieve Endoscopic Improvement.

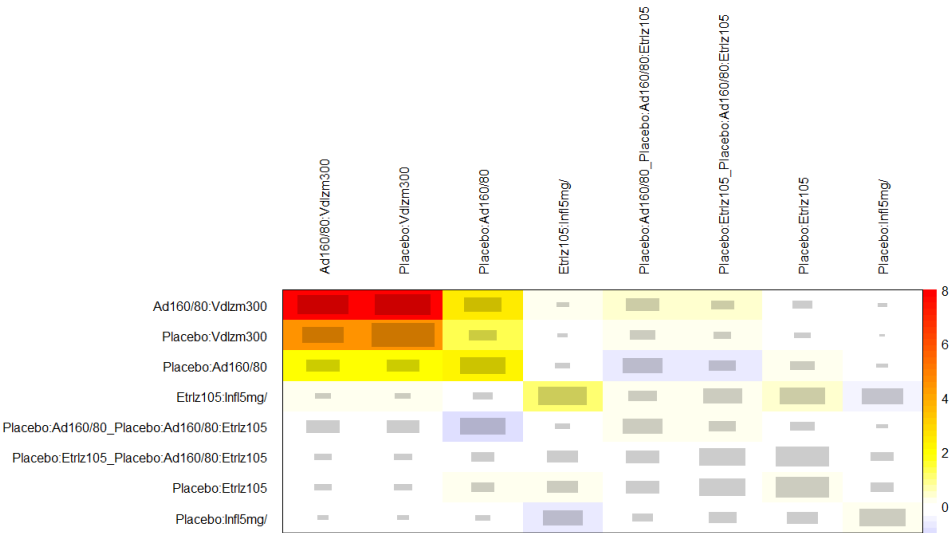


Legend	
Drug	Abbreviation
Adalimumab 160/80mg	Ad160/80
Adalimumab 160/160mg	Ad160/0
Etrolizumab 105mg	Etr105
Infliximab 5mg/kg	Ing5

Supplementary Figure 7. Funnel Plot for Failure to Achieve Clinical Response.

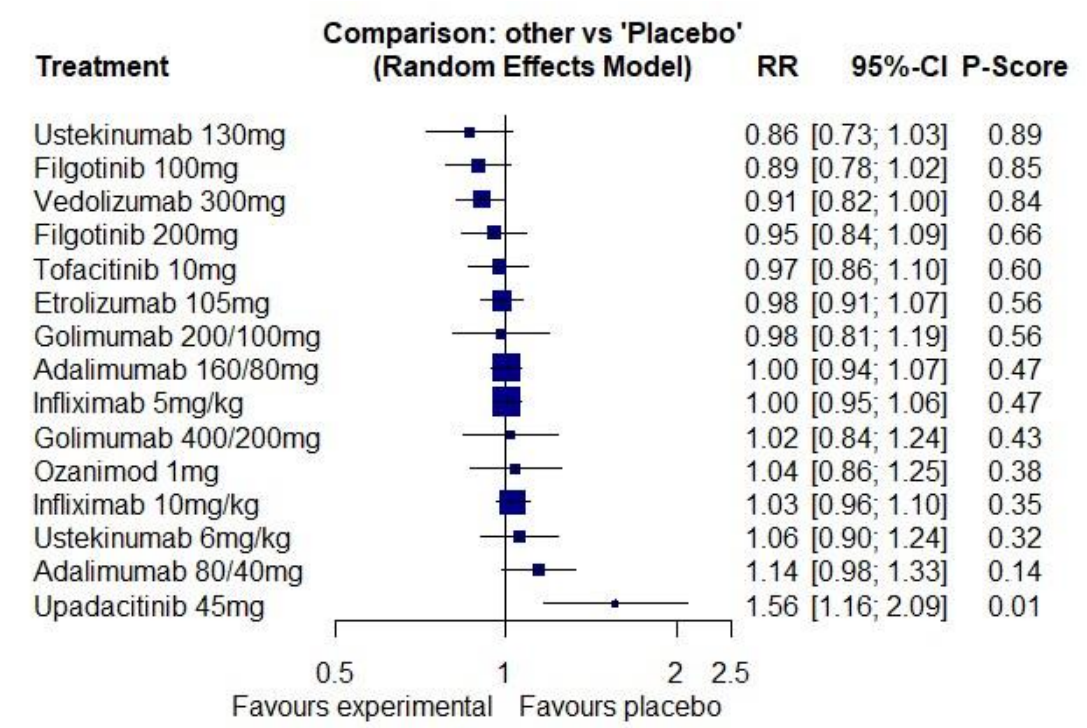
Note: The horizontal axis represents the difference between the comparison-specific and study-specific effect sizes.

Supplementary Figure 8. Network Heat Plot for Failure to Achieve Clinical Response.



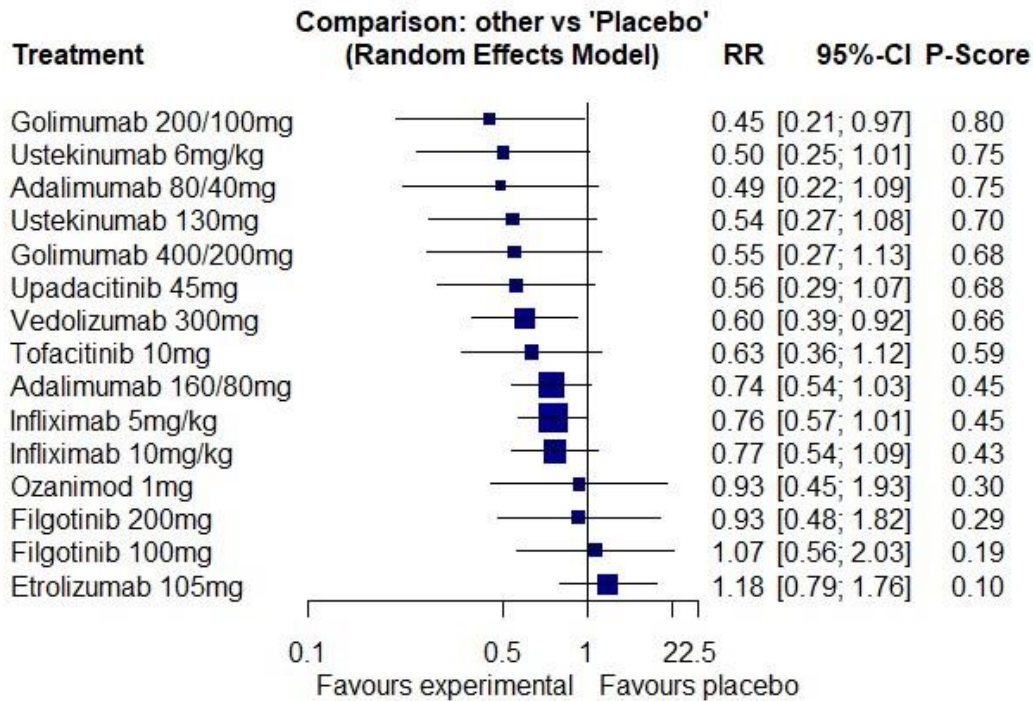
Legend	
Drug	Abbreviation
Adalimumab 160/80mg	Ad160/80
Adalimumab 160/160mg	Ad160/0
Etrolizumab 105mg	Etr105
Infliximab 5mg/kg	Ing5
Vedolizumab 300mg	Vdm300

Supplementary Figure 9. Forest Plot for Experiencing Any Adverse Event.



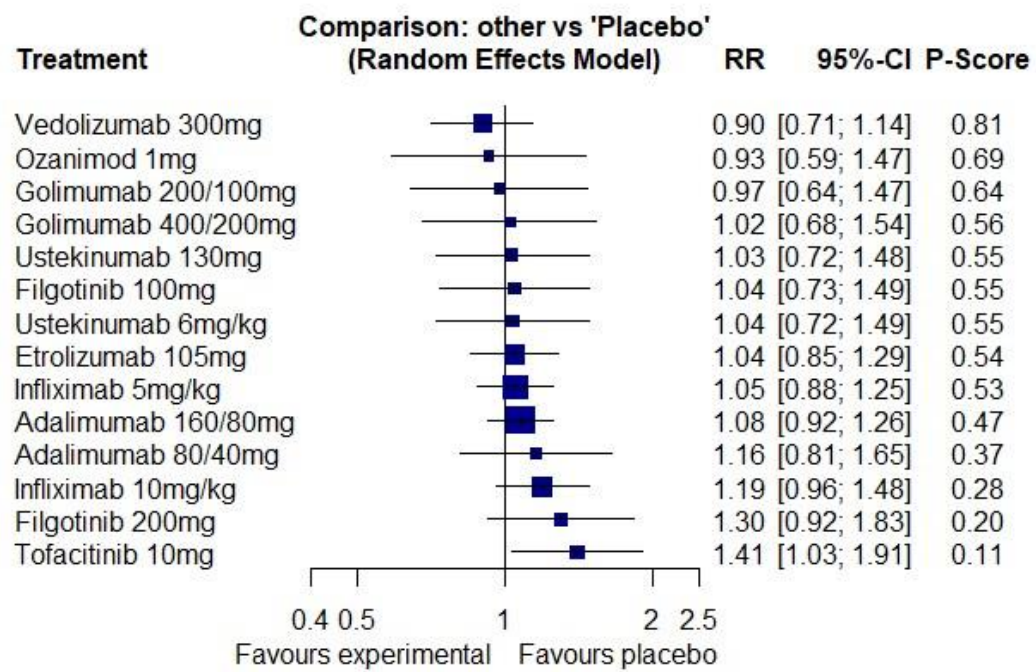
Note: The P-score is the probability of each intervention being ranked as best in the network analysis. A higher score equates to a greater probability of being ranked first.

Supplementary Figure 10. Forest Plot for Experiencing Any Serious Adverse Event.



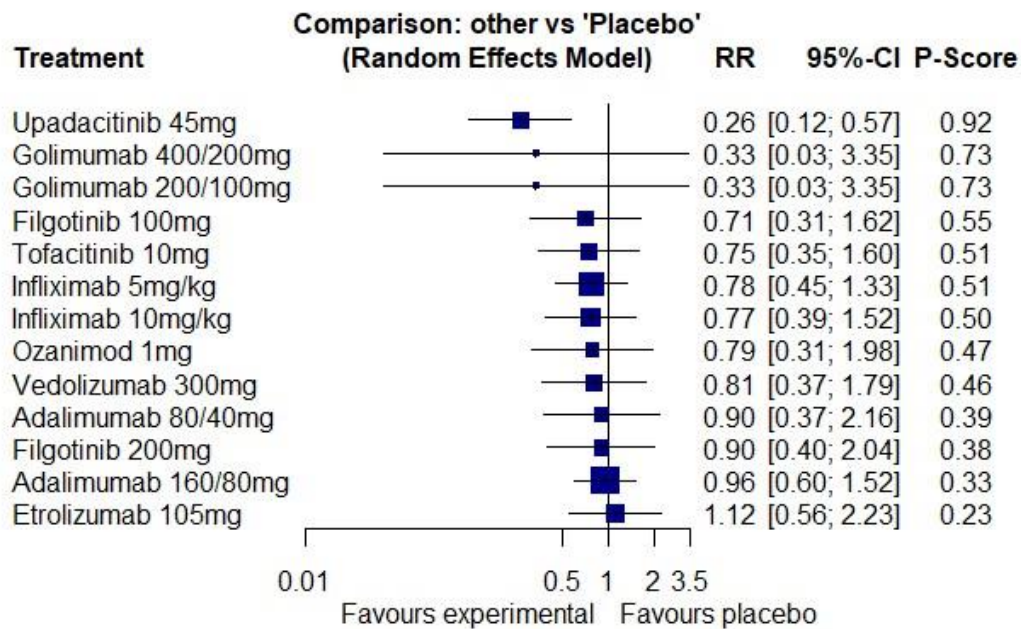
Note: The P-score is the probability of each intervention being ranked as best in the network analysis. A higher score equates to a greater probability of being ranked first.

Supplementary Figure 11. Forest Plot for Experiencing Any Infection.



Note: The P-score is the probability of each intervention being ranked as best in the network analysis. A higher score equates to a greater probability of being ranked first.

Supplementary Figure 12. Forest Plot for Withdrawal Due to Experiencing Any Adverse Event.



Note: The P-score is the probability of each intervention being ranked as best in the network analysis. A higher score equates to a greater probability of being ranked first.

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