

Supplementary data

Supplementary Table 1. List of participating sites

Site	Total numbers contributed	No. with 3 month follow up
NHS Lothian	87	82
Bart's Health NHS Trust	87	79
St Mark's Hospital	77	76
Guy's and St Thomas' NHS Foundation Trust	74	74
St George's University Hospital NHS Foundation Trust	79	68
University College London Hospitals NHS Foundation Trust	68	59
Leeds Teaching Hospitals NHS Trust	40	40
Northern Care Alliance NHS Foundation Trust	41	35
Newcastle Upon Tyne Hospitals NHS Foundation Trust	34	34
King's College Hospital NHS Foundation Trust	31	31
University Hospital Southampton NHS Foundation Trust	25	25
Royal Devon University Healthcare NHS Foundation Trust	28	23

University Hospitals Birmingham NHS Foundation Trust	21	21
Royal Wolverhampton NHS Trust	20	20
Sheffield Teaching Hospitals NHS Foundation Trust	17	17
Hull University Teaching Hospitals NHS Trust	16	16
Imperial College Healthcare NHS Trust	14	14
Kingston Hospital NHS Foundation Trust	12	12
Chelsea and Westminster Hospitals NHS Foundation Trust	8	8
Kettering General Hospital	8	8
The Queen Victoria Hospital, NHS Greater Glasgow & Clyde	8	8
University Hospitals Coventry and Warwickshire NHS Trust	6	5
Glasgow Royal Infirmary, NHS Greater Glasgow and Clyde	5	5
The Mid Yorkshire Teaching NHS Trust	3	2
County Durham and Darlington NHS Foundation Trust	2	2

Supplementary Table 2. Covariates selected for Cox regression model.

Variable
Age (continuous)
Sex (Reference female)
Montreal Disease Location (L1, L2, L3 - Reference L1)
Montreal Disease Behaviour (B1, B2,B3 - Reference B1)
Perianal Disease (Yes / No, - Reference No)
Smoking (Current, Ex-,Non-smoker - Reference Current)
Biologic exposure (Naive / Exposed - Reference Exposed)
Prior UST failure (Yes/No - Reference Yes)
Concomitant Steroids (Nil, Prednisolone, Budesonide - Reference Nil)
Concomitant therapy (Nil, IMM, AT - Reference Nil)

CD, Crohn's disease; IMM, immunomodulator, AT, advanced therapy

Supplementary Table 3. Prior drug exposure

Prior treatment exposure	All patients (n=763)
Thiopurine	555 (73%)
Methotrexate	189 (25%)
Infliximab	530 (69%)
Adalimumab	570 (75%)
Golimumab	22 (3%)
Certolizumab	27 (4%)
Vedolizumab	300 (40%)
Tofacitinib	11 (1%)
Filgotinib	5 (<1%)
Upadacitinib	109 (14%)
Etrasimod	<5 (<1%)
Ustekinumab	548 (72%)
Ustekinumab dose frequency	
4-weekly	95 (17%)
6-weekly	30 (5%)
8-weekly	418 (76%)
12-weekly	7 (1%)
Reason for previously ceasing ustekinumab	
Primary non-response	179 (33%)
Secondary loss of response	332 (61%)
Adverse effects	30 (5%)
Patient choice or non-adherence	8 (1%)
Other	6 (1%)

Supplementary Table 4. Endoscopic inflammation based on physician impression

	Baseline (n=166)	12 weeks (n=49)	24 weeks (n=35)	12 months (n=9)
Remission	2 (1%)	9 (18%)	12 (34%)	2 (22%)
Mild	43 (26%)	22 (45%)	13 (37%)	4 (44%)
Moderate	75 (45%)	14 (29%)	10 (29%)	3 (33%)
Severe	46 (28%)	4 (8%)	0	0

Supplementary Table 5. Adverse events

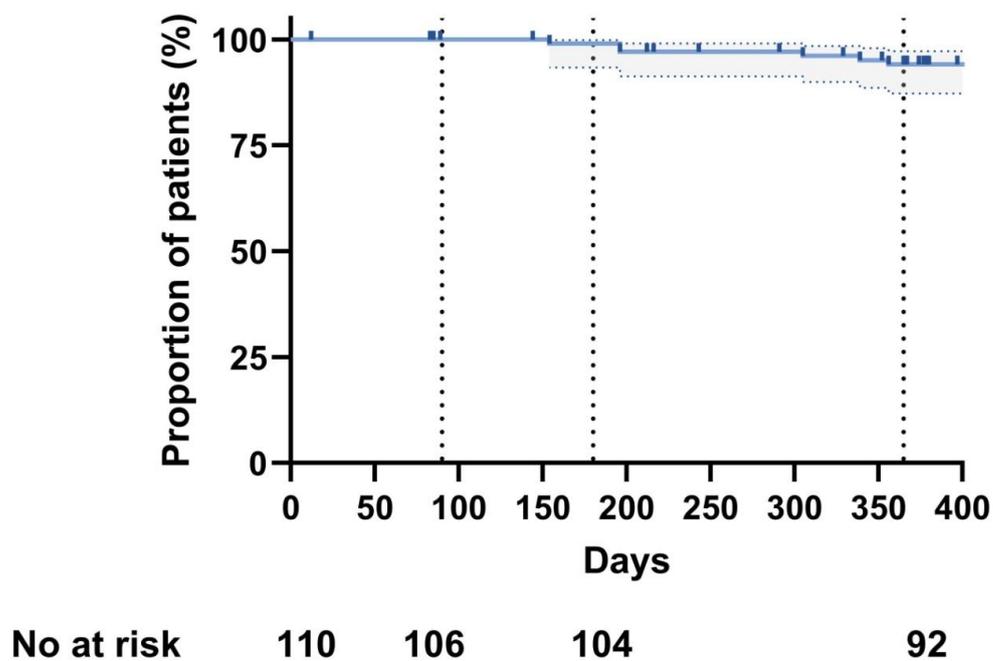
Adverse events	All patients (n=763)
Total number of patients with AEs, n (%)	127 (17%)
Symptomatic Crohn's related hospitalisation, n (%)	72 (9%)
Bowel resection, n (%)	28 (4%)
Infection, n (%)	50 (7%)
Non-serious, n (%)	35 (5%)
Serious, ^a n (%)	15 (2%)
Hypersensitivity reaction, n (%)	14 (2%)
Malignancy, ^b n (%)	<5 (<1%)
Serious adverse events (n=93)	
Total number of patients with serious AEs, n (%)	92 (12%)
AE causing hospitalisation, n (%)	80 (10%)
AE causing drug cessation, n (%)	11 (1%)
MACE, ^b n (%)	<5 (<1%)
Deaths, n (%)	<5 (<1%)

AE, adverse event; MACE, major cardiovascular event.

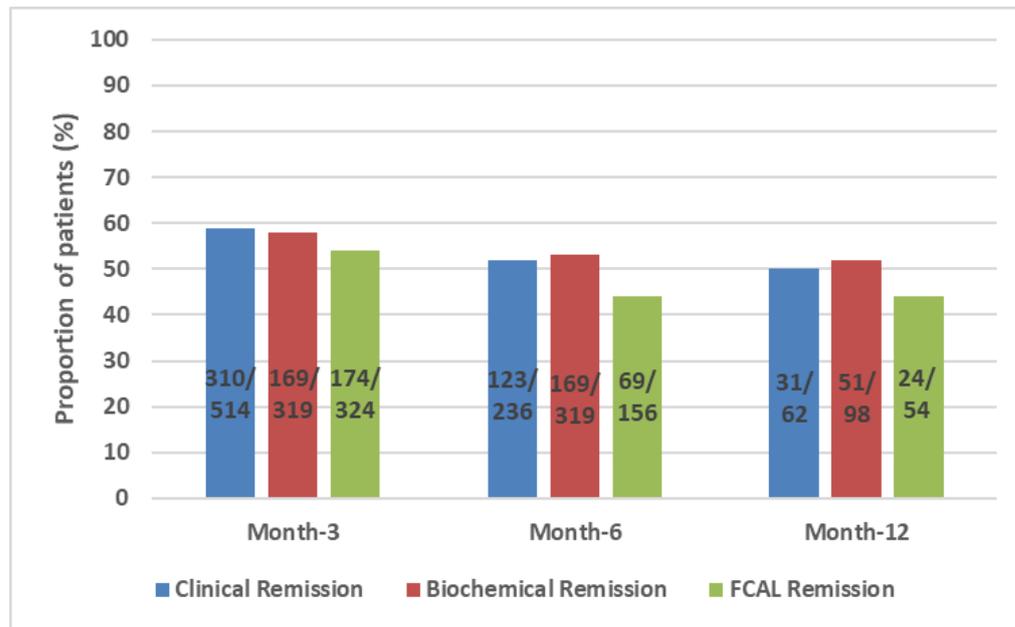
^aSerious infection was defined as one that led to hospitalisation.

^bMACE, malignancy, side effects leading to treatment cessation and hospitalisation were considered serious adverse events.

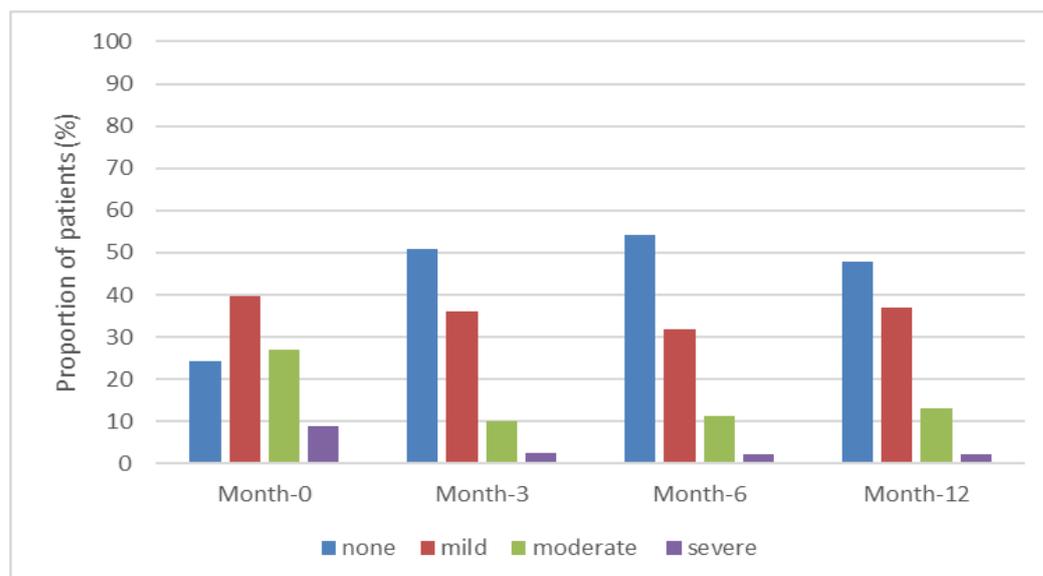
Supplementary Figure 1. Sensitivity analysis of persistence rates in patients with minimum of 12-months follow-up. Dotted lines depict 3, 6 and 12 months, respectively.



Supplementary Figure 2. Effectiveness outcomes of risankizumab (steroid free-clinical remission, CRP remission and faecal calprotectin remission defined as Harvey Bradshaw Index <5, CRP \leq 5 mg/L and FCAL <250 μ g/g, respectively).



Supplementary Figure 3. Changes in abdominal pain score during follow up. Abdominal pain score was available for 595, 537, 219 and 46 patients at baseline, 3, 6 and 12 months.



Supplementary Figure 4. Persistence of Risankizumab in patients with a stoma. Dotted lines depict 3, 6 and 12 months, respectively.

