Supplementary Table 1 Incidence and risk of end-stage renal disease in patients with Crohn's disease and ulcerative colitis according to medication use

	Total No.(n)	ESRD cases (n)	Person-years	ESRD incidence (per 1000 person-years)	adjusted HR[1] (95% CI)	P value
CD						
5-ASA						0.048
No	1352	9	5351	1.68	1(ref.)	
Yes	11233	22	55018	0.40	0.43(0.19-0.99)	
Corticosteroids						0.741
No	5203	7	16999	0.41	1(ref.)	
Yes	7382	16	34666	0.46	0.91(0.37-2.27)	
Immunomodulators						0.840
No	5603	20	27366	0.73	1(ref.)	
Yes	6982	11	33823	0.33	0.87(0.39-1.95)	
Anti-TNF-α						0.379
No	10926	27	48374	0.56	1(ref.)	
Yes	1659	1	8039	0.12	0.40(0.05-3.06)	
UC						
5-ASA						0.067
No	1172	6	4768	1.26	1(ref.)	
Yes	25055	42	12248	0.34	0.44(0.18-1.06)	
Corticosteroids						0.502
No	11325	8	34385	0.23	1(ref.)	
Yes	14902	34	71633	0.47	1.71(0.78-3.75)	
Immunomodulators						0.182
No	22853	41	111306	0.37	1(ref.)	
Yes	3374	7	16750	0.42	1.32 (0.59-2.96)	
Anti-TNF-α						0.982
No	25783	48	123361	0.39	1(ref.)	
Yes	444	0	1871	0	0(0)	

ASA: aminosalicylic acid; CI: confidence interval; CD: Crohn's disease; ESRD: end-stage renal disease; HR: hazard ratio; IBD: inflammatory bowel disease; No: number;

UC: ulcerative colitis.

[1]adjusted for age and sex, region, income, diabetes mellitus, hypertension, dyslipidemia, congestive heart failure, ischemic heart disease, gout and/or hyperuricemia

Supplementary Table 2 Overall mortality in in patients with inflammatory bowel diseases

	Total No. (n)	Overall death (n)	Person-years	Overall mortality rate (per 1000 person-years)	Crude HR (95% CI)	*P* value	Model 1[1] HR (95% CI)	*P* value	Model 2[2] HR (95% CI)	*P* value	Model 3[3] HR (95% CI)	*P* value
Total IBD						0.120		0.113		0.046		< 0.001
Non-IBD control	116436	2551	568890	4.48	1 (reference)		1 (reference)		1 (reference)		1 (reference)	
IBD cohort	38812	902	189395	4.76	1.06 (0.98-1.15)		1.06 (0.99-1.15)		1.08 (1.00-1.17)		2.15 (1.84-2.51)	
IBD subgroup						<0.001		< 0.001		< 0.001		< 0.001
Non-IBD control	116436	2551	568890	4.48	1 (reference)		1 (reference)		1 (reference)		1 (reference)	
Incident IBD group	16606	384	65698	5.84	1.32 (1.19-1.47)		1.47 (1.32-1.64)		1.42 (1.27-1.58)		2.54 (2.15-3.00)	
Prevalent IBD group	22206	518	123697	4.19	0.93 (0.84-1.02)		0.88 (0.80-0.97)		0.92 (0.84 -1.01)		1.79 (1.5-2.13)	

CI: confidence interval; HR: hazard ratio; IBD: inflammatory bowel disease; No: number.

[1]Model 1: adjusted for age and sex

[2]Model 2: adjusted for model 1 + place of residence, income, diabetes mellitus, hypertension, dyslipidemia, congestive heart failure, ischemic heart disease, and gout and/or hyperuricemia

[3]Model 3: adjusted for model 2 + medication use (5-aminosalicylic acid, corticosteroids, immunomodulators, and anti-tumor necrosis factor -α agents)

Supplementary Table 3 Overall mortality in in patients with Crohn's disease and ulcerative colitis

	Total No. (n)	Overall death (n)	Person-years	Overall mortality rate (per 1000 person-years)	Crude HR (95% CI)	P value	Model 1[1] HR (95% CI)	P value	Model 2[2] HR (95% CI)	P value	Model 3[3] HR (95% CI)	P value
Total CD						< 0.001		< 0.001		< 0.001		< 0.001
Non-CD control	37755	388	185038	2.10	1 (reference)		1 (reference)		1 (reference)		1 (reference)	
CD cohort	12585	264	61253	4.31	2.06 (1.76-2.40)		2.13 (1.82-2.49)		2.03 (1.74-2.38)		2.79 (2.14-3.64)	
CD subgroup						< 0.001		< 0.001		< 0.001		< 0.001
Non-CD control	37755	388	185038	2.10	1 (reference)		1 (reference)		1 (reference)		1 (reference)	
Incident CD group	5586	113	21862	5.17	2.46 (1.99-3.03)		2.53 (2.05-3.13)		2.28 (1.84-2.83)		2.91 (2.18-3.87)	
Prevalent CD group	6999	151	39392	3.83	1.83 (1.52-2.21)		1.91 (1.58-2.30)		1.89 (1.56-2.28)		2.63 (1.93-3.58)	
Total UC						0.006		0.004		0.028		<0.001
Non-UC control	78681	2163	383852	5.63	1 (reference)		1 (reference)		1 (reference)		1 (reference)	
UC cohort	26227	638	128142	4.98	0.88 (0.81-0.97)		0.88 (0.81-0.96)		0.91 (0.83-0.99)		1.98 (1.62-2.41)	
UC subgroup						<0.001		<0.001		<0.001		<0.001
Non-UC control	78681	2163	383852	5.63	1 (reference)		1 (reference)		1 (reference)		1 (reference)	
Incident UC group	11020	271	43836	6.18	1.11 (0.98-1.27)		1.26 (1.11-1.43)		1.24 (1.09-1.41)		2.49 (2.01-3.09)	
Prevalent UC group	15207	367	84306	4.35	0.77 (0.69-0.86)		0.72 (0.64-0.80)		0.76 (0.68-0.84)		1.59 (1.28-1.98)	

CD: Crohn's disease; CI: confidence interval; HR: hazard ratio; No: number; UC: ulcerative colitis.

[1]Model 1: adjusted for age and sex

[2]Model 2: adjusted for model 1 + region, income, diabetes mellitus, hypertension, dyslipidemia, congestive heart failure, ischemic heart disease, gout and/or hyperuricemia

[3]Model 3: adjusted for model 2 + medication use (5-aminosalicylic acid, corticosteroids, immunomodulators, and anti-tumor necrosis factor -α agents)