

Supplementary Appendix 1: data sources for cohort identification and ICHOM-IBD generation

	Name	Description
ADDE	Annual District Death Extract	Mortality records from the Office for National Statistics (ONS) including cause and date of death.
BIO	Biologics	Records of patients receiving biopharmaceutical treatments, their dates of treatment and medicine administered and in designated outpatient clinics in two health boards.
EDDS	Emergency Department Data Set	Records of attendance at Emergency Department with dates and ICD-10 clinical coding.
OPDW	Out-Patient Database for Wales	Out-Patient records for secondary care episodes including clinic attendance.
PEDW	Patient Episode Database for Wales	In-patient records for secondary care spells and episodes, including dates, locations and ICD-10 and OPCS clinical coding.
PROM	Patient Reported Outcome Measures	The IBD-control PROM questionnaire responses from patients attending biologics clinics at one health board.
WDSD	Welsh Demographic Service Dataset	Residence and registration history, including linkage of Lower-layer Super Output Area (LSOA) version 2011 to Welsh Index of Multiple Deprivation (WIMD) version 2019.
WLGP	Welsh Longitudinal General Practice	Primary care records with date and Read clinical coding for general practice attendances.



Supplementary Appendix 2: Diagnosis Read codes

Diagnosis	Read_cd	Code Description
0 = Crohn's disease	J40..	Regional enteritis -Crohns Disease
0 = Crohn's disease	J400.	Regional enteritis of the small bowel
0 = Crohn's disease	J4000	Regional enteritis of the duodenum
0 = Crohn's disease	J4001	Regional enteritis of the jejunum
0 = Crohn's disease	J4002	Crohns Disease of the terminal ileum
0 = Crohn's disease	J4003	Crohns Disease of the ileum unspecified
0 = Crohn's disease	J4004	Crohns Disease of the ileum NOS
0 = Crohn's disease	J4005	Exacerbation of Crohns Disease of small intestine
0 = Crohn's disease	J400z	Crohns Disease of the small bowel NOS
0 = Crohn's disease	J401.	Regional enteritis of the large bowel
0 = Crohn's disease	J4010	Regional enteritis of the colon
0 = Crohn's disease	J4011	Regional enteritis of the rectum
0 = Crohn's disease	J4012	Exacerbation of Crohns Disease of large intestine
0 = Crohn's disease	J401z	Crohns Disease of the large bowel NOS
0 = Crohn's disease	J402.	Regional ileocolitis
0 = Crohn's disease	J40z.	Regional enteritis NOS
0 = Crohn's disease	Jyu40	[X]Other Crohns Disease
0 = Crohn's disease	N0311	Arthropathy in Crohn s disease
0 = Crohn's disease	N0453	Juvenile arthritis in Crohn s disease
1 = Ulcerative colitis	J410.	Ulcerative proctocolitis
1 = Ulcerative colitis	J4100	Ulcerative ileocolitis
1 = Ulcerative colitis	J4101	Ulcerative Ulcerative Colitis
1 = Ulcerative colitis	J4102	Ulcerative rectosigmoiditis
1 = Ulcerative colitis	J4103	Ulcerative proctitis
1 = Ulcerative colitis	J4104	Exacerbation of Ulcerative Colitis
1 = Ulcerative colitis	J410z	Ulcerative proctocolitisNOS
1 = Ulcerative colitis	J411.	Ulcerative (chronic) enterocolitis
1 = Ulcerative colitis	J412.	Ulcerative (chronic) ileocolitis
1 = Ulcerative colitis	J413.	Ulcerative pancolitis
1 = Ulcerative colitis	J436.	Microscopic Colitis
1 = Ulcerative colitis	Jyu41	[X]Other Ulcerative Colitis
1 = Ulcerative colitis	Jyu42	[X]Other specified noninfective gastroenteritis+colitis
1 = Ulcerative colitis	N0310	Arthropathy in Ulcerative Colitis



Supplementary Appendix 2: Diagnosis ICD-10 codes

Diagnosis	Read_cd	Code Description
0 = Crohn's disease	K500	Crohn's disease
0 = Crohn's disease	K501	Crohn's disease
0 = Crohn's disease	K508	Crohn's disease
0 = Crohn's disease	K509	Crohn's disease
0 = Crohn's disease	M074	Crohn's disease
0 = Crohn's disease	M091	Crohn's disease
1 = Ulcerative colitis	K510	Ulcerative colitis
1 = Ulcerative colitis	K511	Ulcerative colitis
1 = Ulcerative colitis	K512	Ulcerative colitis
1 = Ulcerative colitis	K513	Ulcerative colitis
1 = Ulcerative colitis	K514	Ulcerative colitis
1 = Ulcerative colitis	K515	Ulcerative colitis
1 = Ulcerative colitis	K518	Ulcerative colitis
1 = Ulcerative colitis	K519	Ulcerative colitis
1 = Ulcerative colitis	K528	Ulcerative colitis
1 = Ulcerative colitis	M075	Ulcerative colitis
1 = Ulcerative colitis	M092	Ulcerative colitis
2 = Indeterminate IBD or colitis unclassified	K523	other IBD

Please see the website for Supplementary Appendices 3, 4.

