Supplementary Table 1: Characteristics of the BioVU replication cohort overall and by immune checkpoint inhibitor-mediated colitis (IMC)

Characteristics	Overall	All-grade IMC	Severe IMC
	(n=1147)	(n=104)	(n=83)
Mean age at diagnosis (SD)	62.1 (13.1)	61.6 (12.7)	61.4 (12.9)
Sex, n (%)			
Male	727 (63.4)	62 (59.6)	48 (57.8)
Female	420 (36.6)	42 (40.4)	35 (42.2)
Type of therapy, n (%)			
Anti PD-1/PD-L1 monotherapy	828 (72.7)	34 (32.7)	23 (27.7)
Anti PD-1/PD-L1 + Anti CTLA4 therapy	45 (3.9)	25 (24.0)	22 (26.5)
Anti CTLA4 monotherapy	274 (23.9)	45 (43.3)	38 (45.8)

IMC: Immune checkpoint inhibitor-mediated colitis, SD: Standard deviation

Supplementary Table 2: Previously published polygenic risk score (PRS) of ulcerative colitis as a predictor of time to development of all-grade immune checkpoint inhibitor-mediated colitis (IMC) in the entire GeRI cohort, using Cox proportional hazards models

All-grade IMC					
PRS[a]	***PRS method***	**HR per SD**	**95% CI**	***P***	***Ref.***
179-SNP PRS	SNPnet	1.24	0.94 - 1.64	0.13	[1]
809-SNP PRS	SNPnet	**1.33**	**1.01 – 1.74**	**0.04**	[1]
1,505-SNP PRS	Penalized Regression	**1.37**	**1.02 – 1.85**	**0.04**	[2]
566,637-SNP PRS	LDPred2	**1.41**	**1.04 – 1.91**	**0.03**	[2]

[a]Models are adjusted for age at diagnosis, sex, histology, type of therapy, recruiting site, and 5 principal components. IMC: Immune checkpoint inhibitor-mediated colitis, PRS: Polygenic risk score, HR: Hazard ratio, SD: Standard deviation, CI: Confidence interval, SNP: Single nucleotide polymorphism

1. Tanigawa Y, Qian J, Venkataraman G, et al. Significant sparse polygenic risk scores across 813 traits in UK Biobank. *PLOS Genetics*. 2022;18(3):e1010105. doi:10.1371/journal.pgen.1010105

2. Privé F, Aschard H, Carmi S, et al. Portability of 245 polygenic scores when derived from the UK Biobank and applied to 9 ancestry groups from the same cohort. *The American Journal of Human Genetics*. 2022;109(1):12-23. doi:10.1016/j.ajhg.2021.11.008