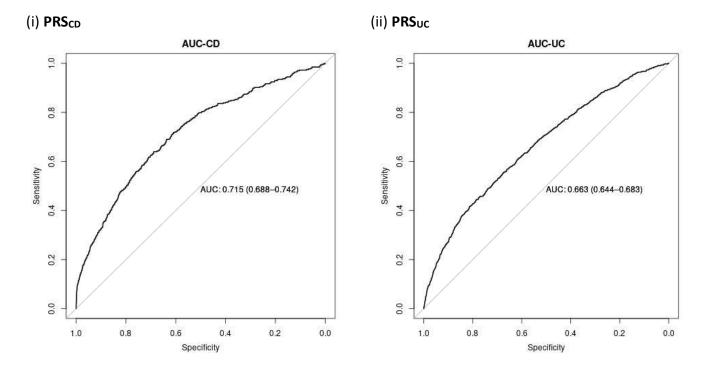
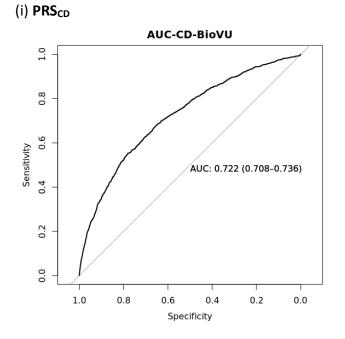
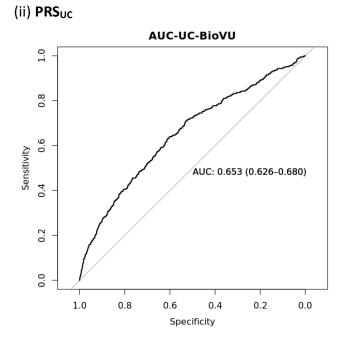
Supplementary Figure 1: Receiver operating curves for (i) PRS_{CD} , and (ii) PRS_{UC} , respectively in UK Biobank (Testing)



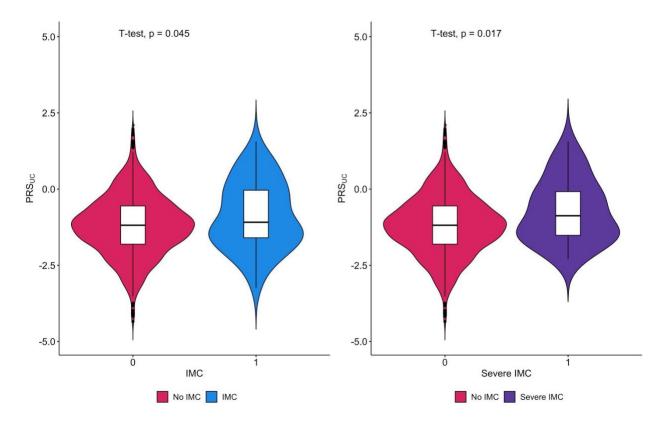
Supplementary Figure 2: Receiver operating curves for (i) PRS_{CD}, and (ii) PRS_{UC}, respectively in BioVU (Validation cohort)



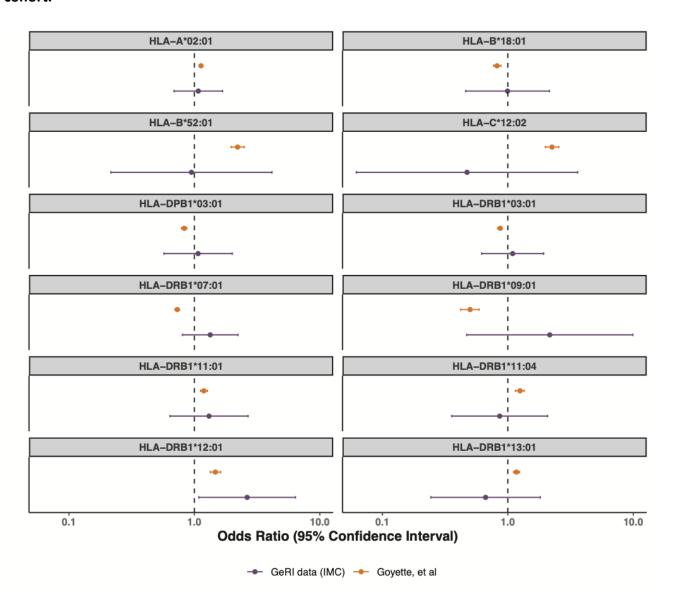




Supplementary Figure 3: Differences in the mean PRS_{UC} by immune checkpoint inhibitor-mediated colitis (All-grade and severe) in the GeRI cohort



Supplementary Figure 4: Associations of known ulcerative colitis-associated HLA markers (frequency ≥0.01) with all-grade immune checkpoint inhibitor-mediated colitis in the GeRI cohort.



Supplementary Figure 5: Immune checkpoint inhibitor-mediated colitis (IMC) as a predictor of progression-free survival (PFS) in the GeRI cohort (i) All-grade IMC, (iii) Severe IMC. Kaplan—Meier survival curves are unadjusted and compare those who had an IMC (all-grade or severe) with those who did not have an IMC (No IMC). The p-values in the graph represent the log-rank p-values and the dotted line represents median survival time. Graphs are cox proportional hazards models with 90-day landmark.

