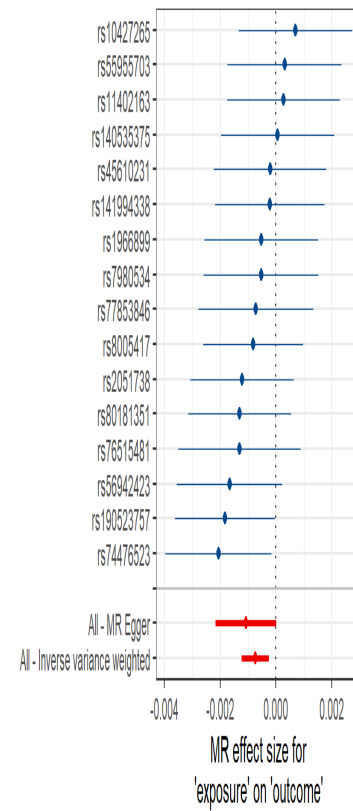
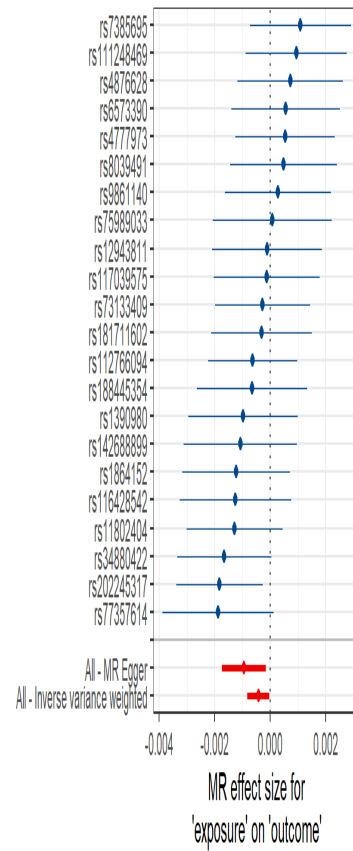
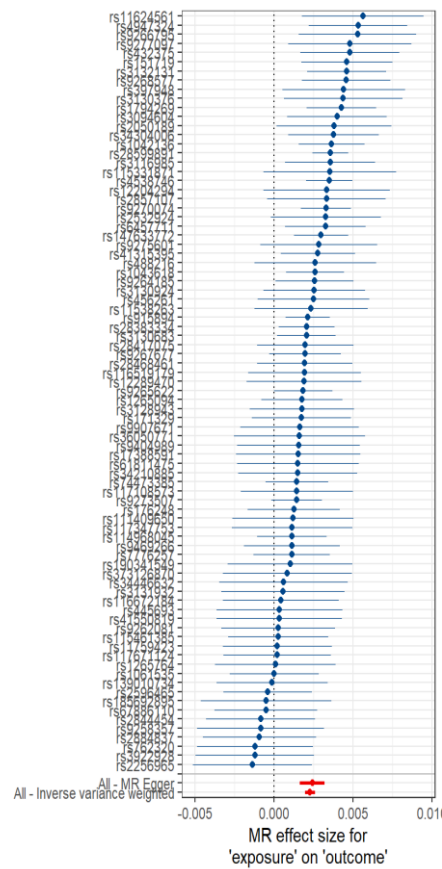


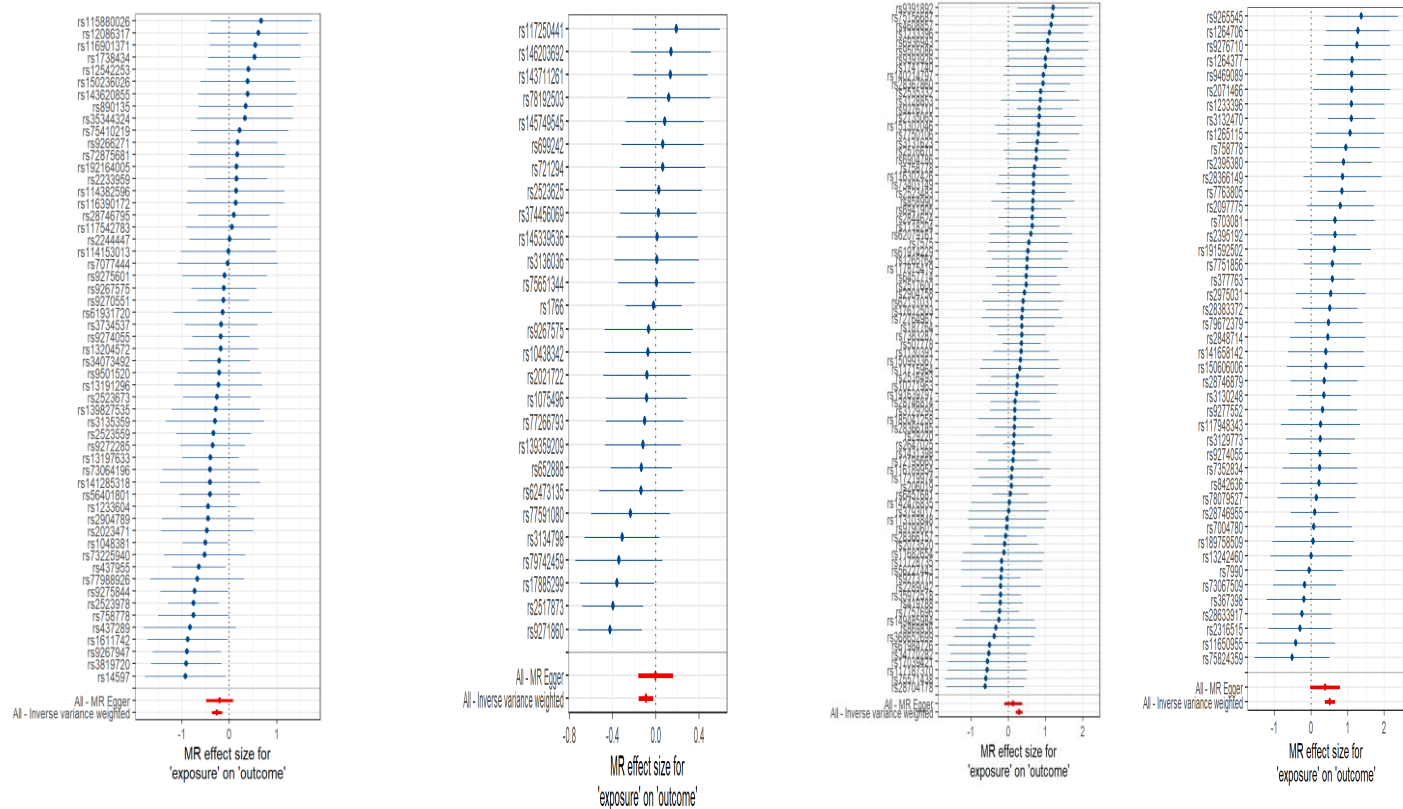
Supplementary Figure S1. Forest plots for causal effects of antibody-mediated immune responses on UC (single SNP)

Note: (a) *Varicella zoster virus glycoproteins E and I antibody levels-UC* (b) *Anti-varicella zoster virus IgG seropositivity-UC* (c) *Anti-polyomavirus 2 IgG seropositivity-UC* (d) *Human herpes virus 7 U14 antibody levels-UC*



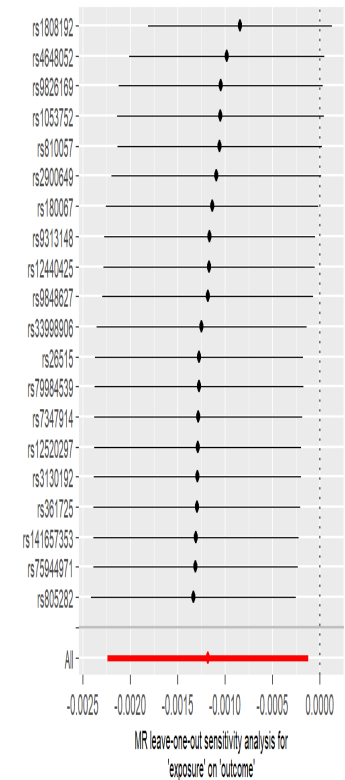
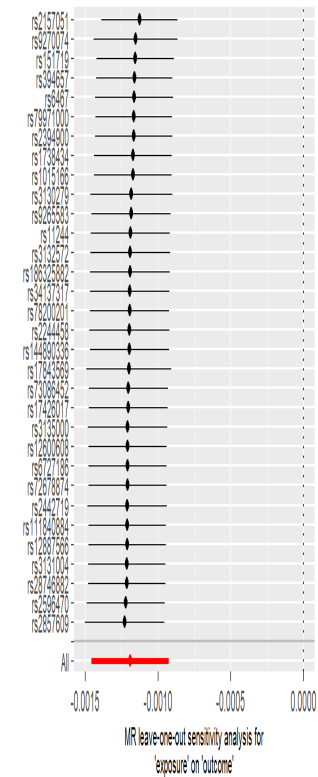
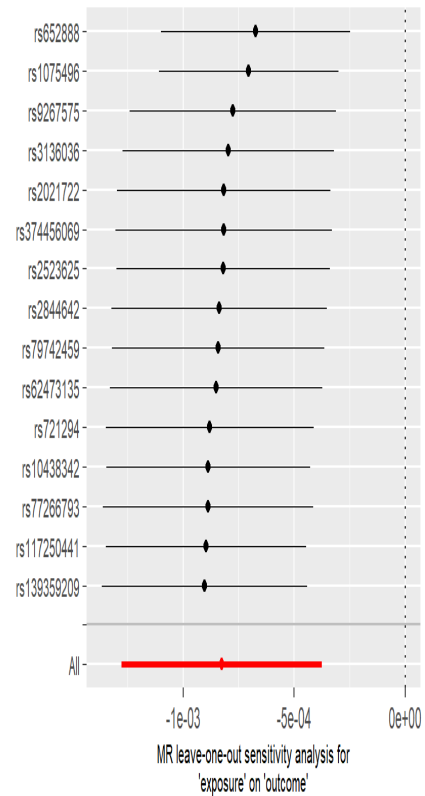
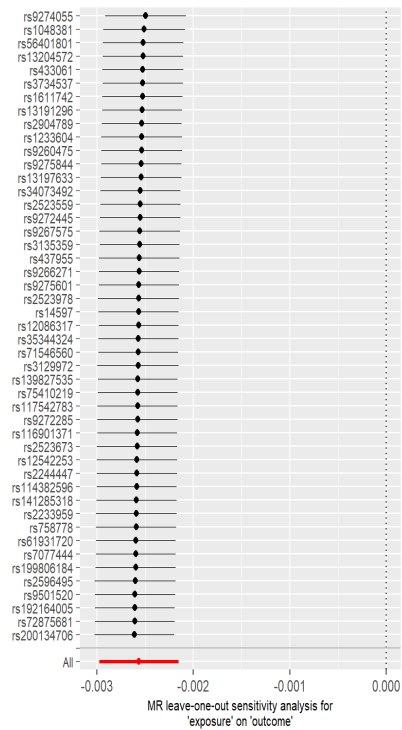
Supplementary Figure S2. Forest plots for causal effects of antibody-mediated immune responses on UC (single SNP)

Note: (a) Epstein-Barr virus EBNA-1 antibody levels-UC (b) Anti-cytomegalovirus IgG seropositivity-UC (c) Chlamydia trachomatis pGP3 antibody levels-UC



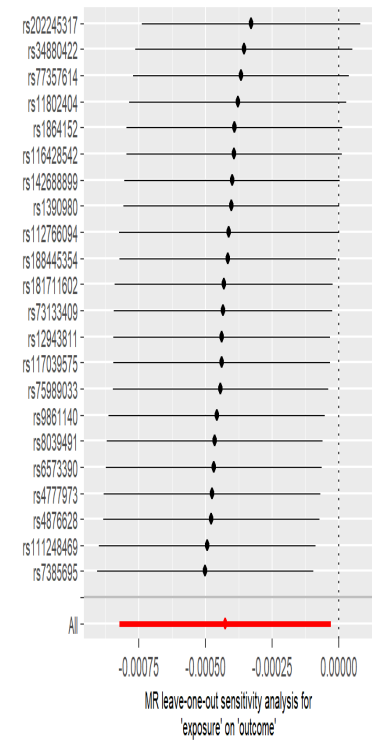
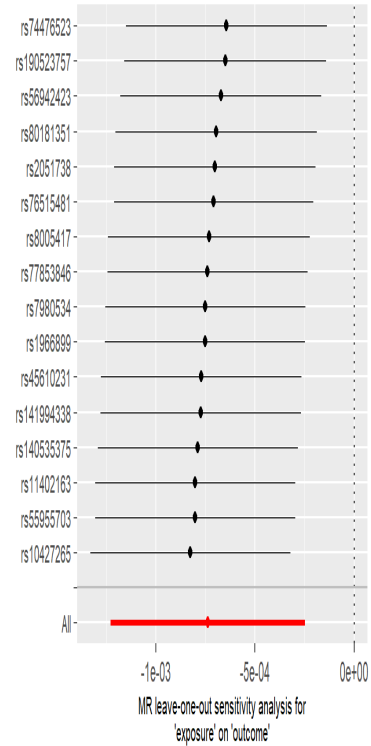
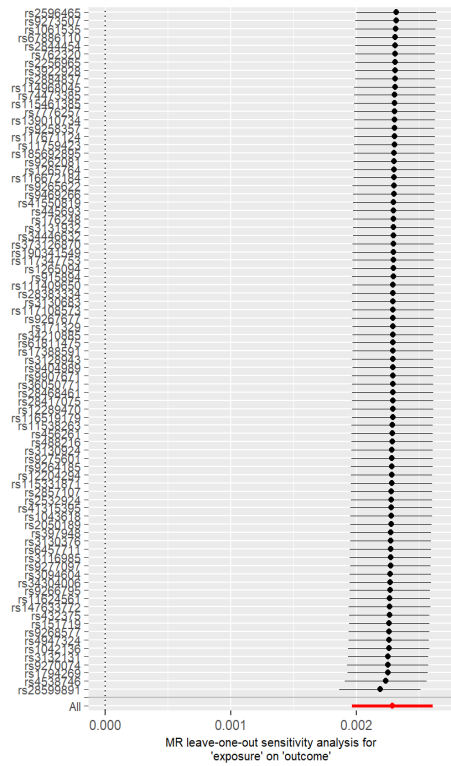
Supplementary Figure S3. Forest plots for causal effects of antibody-mediated immune responses on CD(single SNP)

Note: (a) *Varicella zoster virus glycoproteins E and I antibody levels-CD* (b) *Anti-varicella zoster virus IgG seropositivity-CD* (c) *Epstein-Barr virus ZEBRA antibody levels-CD* (d) *Epstein-Barr virus EA-D antibody levels-CD*



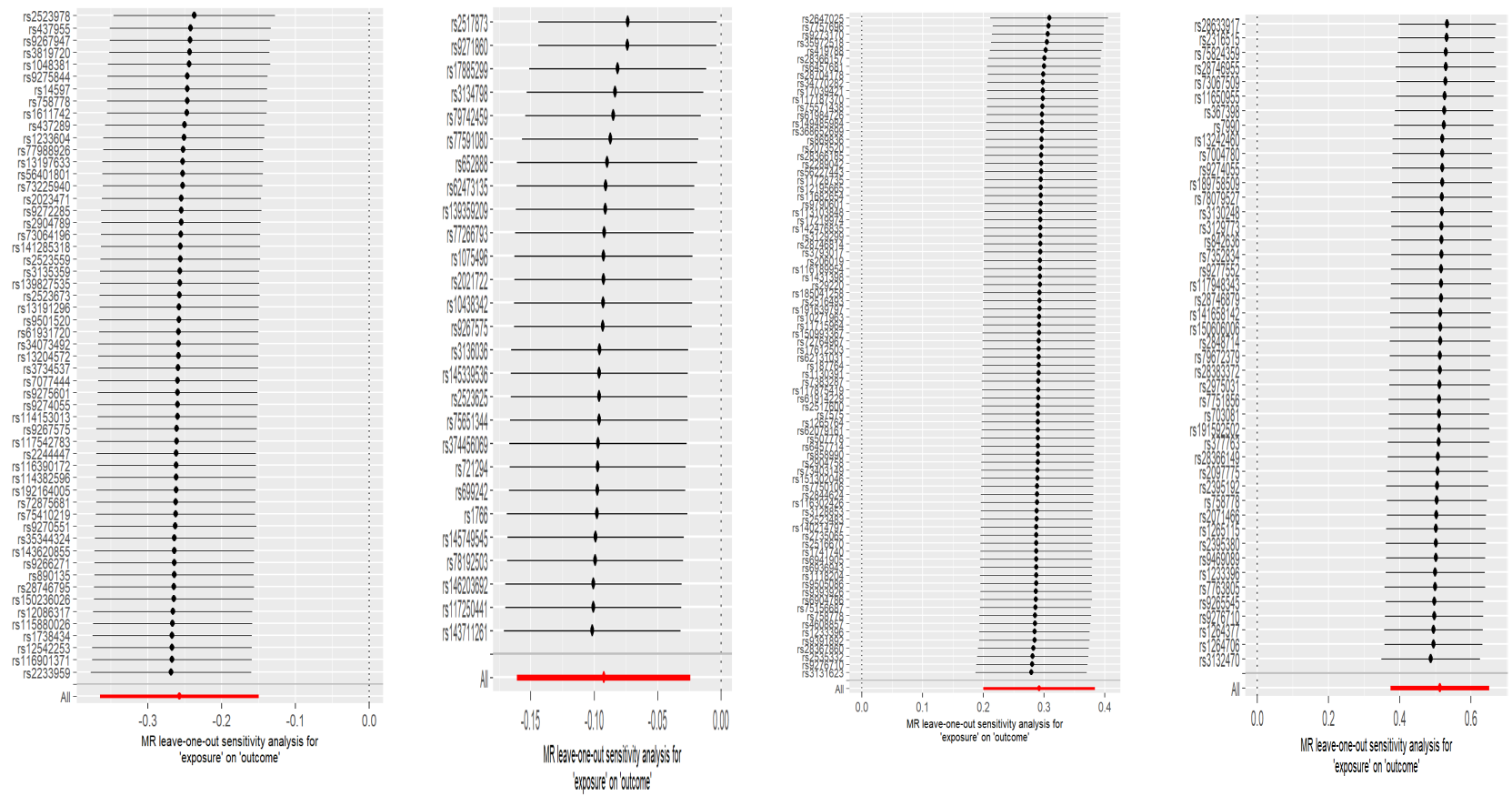
Supplementary Figure S4. Leave-one-out for MR causal effects of antibody-mediated immune responses on UC

(a) *Varicella zoster virus glycoproteins E and I antibody levels-UC* (b) *Anti-varicella zoster virus IgG seropositivity-UC* (c) *Anti-polyomavirus 2 IgG seropositivity-UC* (d) *Human herpes virus 7 U14 antibody levels-UC*



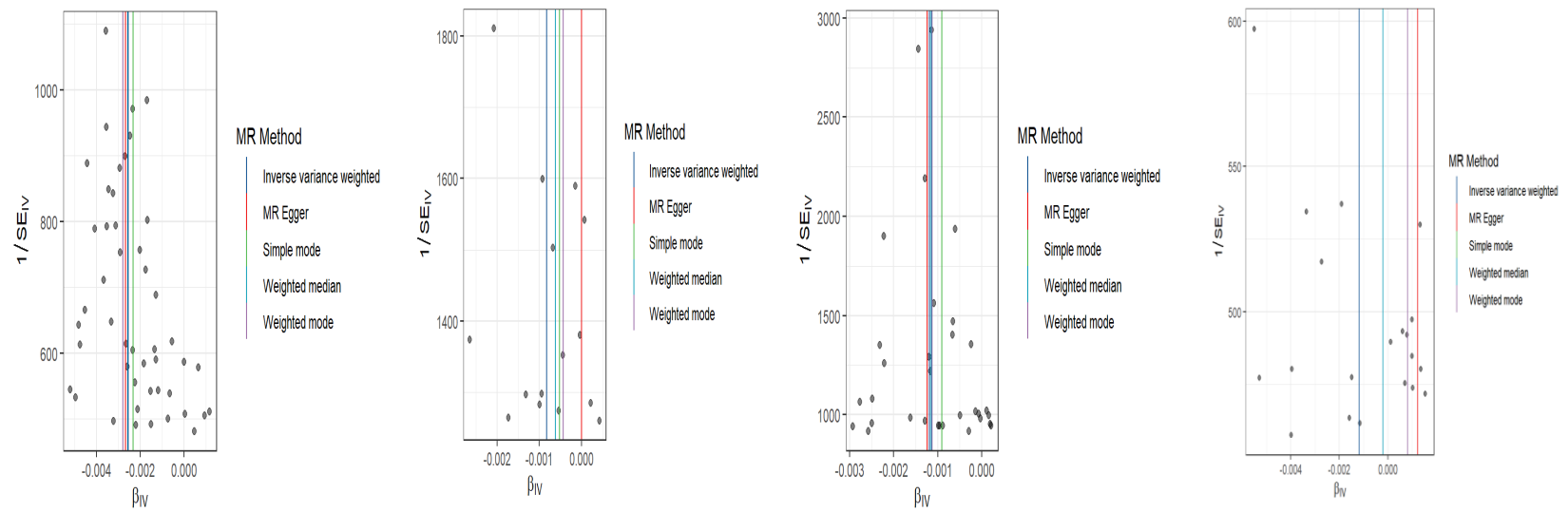
Supplementary Figure S5. Leave-one-out for MR causal effects of antibody-mediated immune responses on UC

Note: (a) *Epstein-Barr virus EBNA-1 antibody levels-UC* (b) *Anti-cytomegalovirus IgG seropositivity-UC* (c) *Chlamydia trachomatis pGP3 antibody levels-UC*



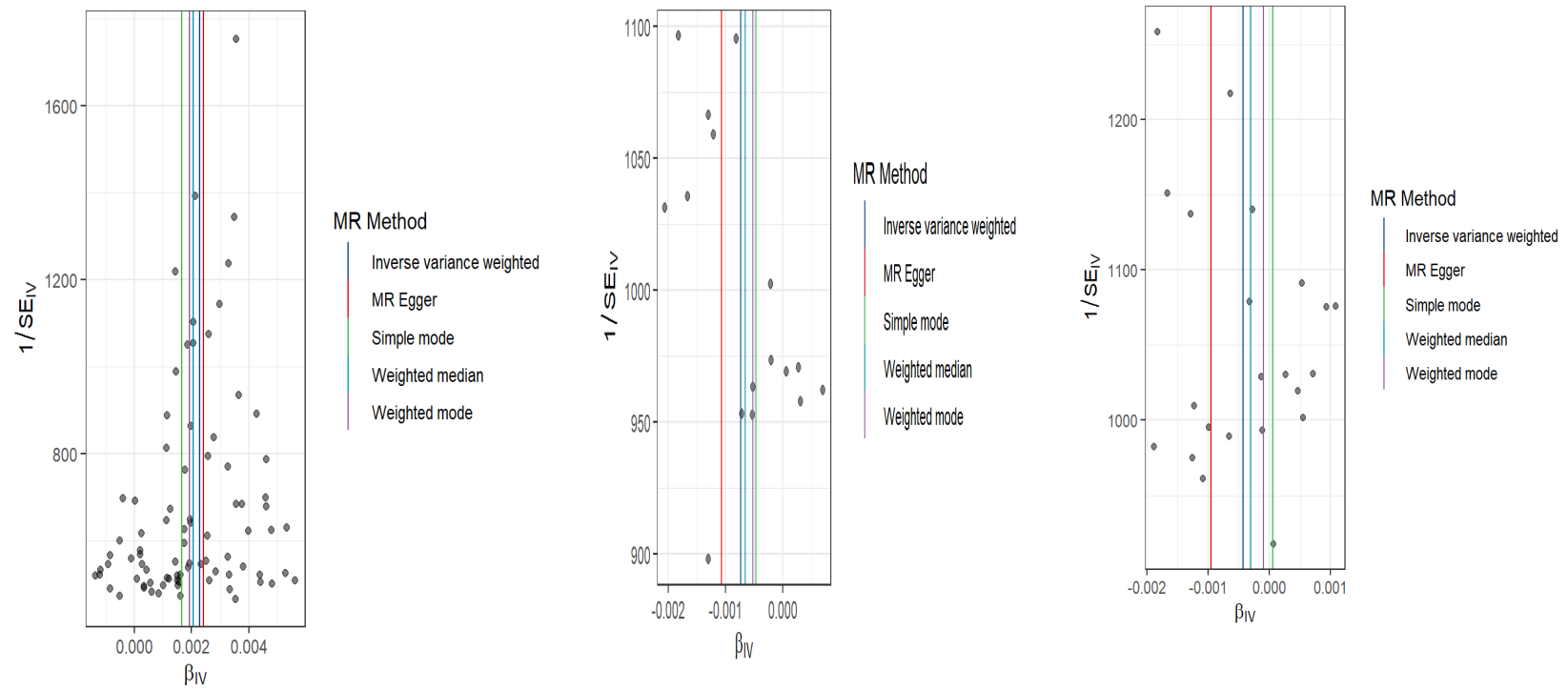
Supplementary Figure S6. Leave-one-out for MR causal effects of antibody-mediated immune responses on CD

Note: (a) *Varicella zoster virus glycoproteins E and I antibody levels-CD* (b) *Anti-varicella zoster virus IgG seropositivity-CD* (c) *Epstein-Barr virus ZEBRA antibody levels-CD* (d) *Epstein-Barr virus EA-D antibody levels-CD*



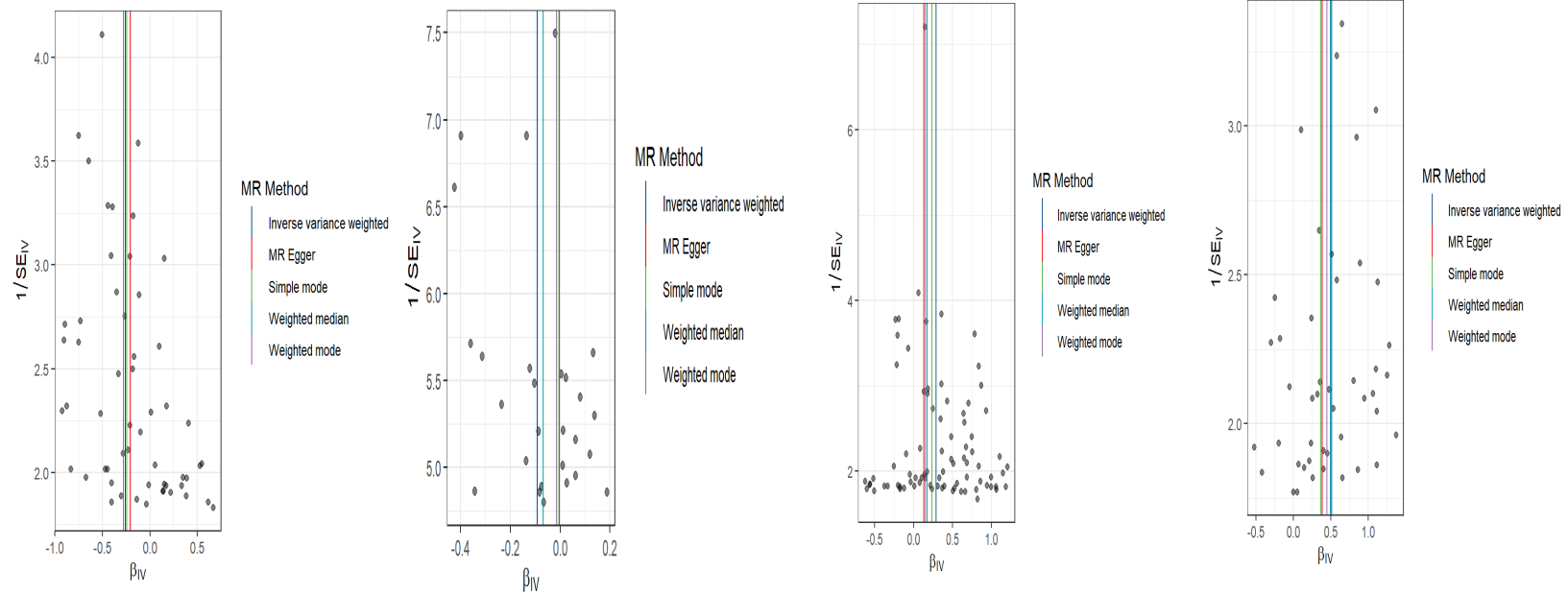
Supplementary Figure S7. Funnel plots for MR causal effects of antibody-mediated immune responses on UC

Note: (a) *Varicella zoster virus glycoproteins E and I antibody levels-UC* (b) *Anti-varicella zoster virus IgG seropositivity-UC* (c) *Anti-polyomavirus 2 IgG seropositivity-UC* (d) *Human herpes virus 7 U14 antibody levels-UC*



Supplementary Figure S8. funnel plots for MR causal effects of antibody-mediated immune responses on UC

Note: (a) *Epstein-Barr virus EBNA-1 antibody levels-UC* (b) *Anti-cytomegalovirus IgG seropositivity-UC* (c) *Chlamydia trachomatis pGP3 antibody levels-UC*



Supplementary Figure S9. Funnel plots for MR causal effects of antibody-mediated immune responses on CD

Note: (a) *Varicella zoster virus glycoproteins E and I antibody levels-CD* (b) *Anti-varicella zoster virus IgG seropositivity-CD* (c) *Epstein-Barr virus ZEBRA antibody levels-CD* (d) *Epstein-Barr virus EA-D antibody levels-CD*