Figure legends:

**Supplemental Figure 1.** Cancer outcome stratified by SIT used at different time points.

**Supplemental Figure 2:** Overall survival curves between (A) vedolizumab (VDZ) alone, infliximab (IFX) alone, or combined selective immunosuppressive therapies sequentially (SIT); (B) ≤2 and >2 steroid tapering attempts groups; (C) 1-2 doses of selective immunosuppressive therapy (SIT) and ≥3 doses SIT groups. IMDC, immune-mediated diarrhea and colitis. Patients who had follow-up duration longer than 45 months were administratively censored at 45 months.

**Supplemental Figure 3.** Subgroup analysis of overall survival (OS) curves from onset of immune-mediated diarrhea and colitis in patients within the same follow-up time window (2017-2020) (A) among different selective immunosuppressive therapy (SIT) regimens; between vedolizumab (VDZ) and infliximab (IFX) treated patients with; (B) genitourinary cancer; (C) lung cancer; and (D) melanoma. Patients who had follow-up duration longer than 45 months were administratively censored at 45 months.

**Supplemental Figure 4.** Overall survival curves from onset of immune-mediated diarrhea and colitis between vedolizumab (VDZ) and infliximab (IFX)-treated patients with (A) genitourinary cancer; (B) lung cancer; and (C) melanoma. Patients who had follow-up duration longer than 45 months were administratively censored at 45 months.

**Supplemental Figure 5.** Infection associated with immunosuppressant use. (A) Comparison between short and long steroid treatment duration in different treatment groups; (B) comparison between fewer and more steroid treatment courses in different treatment groups.