Supplementary Table 1. Multivariable regression of pathogens in patients with Crohn’s disease and Ulcerative colitis adjusted for age, sex, race, ethnicity, and season.

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| --- | --- | --- | --- | --- |
|  | Crohn’s Disease | p-value\* | Ulcerative Colitis | p-value+ |
| Viruses | 0.67 (0.49-1.10) | 0.081 | **0.29 (0.18-0.48)** | **0.001** |
|  Adenovirus F 40/41 | 0.52 (0.12-2.18) | 0.387 | - | - |
|  Astrovirus | 0.23 (0.33-1.76) | 0.169 | 0.43 (0.11-1.74) | 0.256 |
|  Norovirus GI/GII | **1.98 (1.19-3.33)** | **0.004** | **0.27 (0.14-0.53)** | **0.001** |
|  Rotavirus A | 0.42 (0.12-1.28) | 0.120 | 0.47 (0.18-1.28) | 0.421 |
|  Sapovirus (I,II,IV,V) | 0.57 (0.18-1.56) | 0.172 | 0.44 (0.16-1.20) | 0.112 |
| Bacteria | 0.78 (0.53-1.93) | 0.091 | **1.81 (1.21-2.71)** | **0.041** |
|  Campylobacter species | 1.32 (0.72-2.19) | 0.329 | **1.92 (1.15-1.86)** | **0.039** |
|  Plesiomonas shigelloides | - | - | 0.41 (0.12-1.34) | 0.140 |
|  Salmonella species  | 0.83 (0.33-1.99) | 0.740 | - | **-** |
|  Yersinia enterocolitica | 0.31 (0.04-2.11) | 0.361 |  0.52 (0.13-2.13) | 0.37 |
|  Vibrio species  | 2.89 (0.29-17.39) | 0.449 | - | - |
|  Vibrio cholerae | 7.90 (0.75-60.71) | 0.078 | - | - |
|  Escherichia coli species | 0.89 (0.49-1.39) | 0.124 |  **1.79 (1.05-1.59)**  | **0.041** |
|  Enteroaggregative E.coli (EAEC) | 0.71 (0.42-1.26) | 0.289 | 1.21 (0.64-1.59) | 0.717 |
|  Enteropathogenic E.coli (EPEC) | 0.63 (0.41-1.34) | 0.168 | 1.23 (0.69-1.45) | 0.642 |
|  Enterotoxigenic E.coli (LT/ST) | 0.58 (0.21-1.56) | 0.280 | 1.54 (0.19-1.88) | 0.210 |
|  Shigalike Toxin Producing E.coli STX/ST2 | 0.59 (0.11-1.79) | 0.312 | 1.61 (0.24-1.97) | 0.346 |
|  E.Coli 0157 | 1.31 (0.30-8.90) | 0.897 | - | - |
|  Shigella/Enteroinvasive E.coli (EIEC) | 0.64 (0.23-1.74) | 0.361 | 1.43 (0.14-1.33) | 0.143 |
| Parasites | **0.34 (0.10-0.96)** | **0.043** | **0.08 (0.01-0.61)** | **0.011** |
|  Cryptosporidium | 0.21 (0.04-1.89) | 0.324 |  |  |
|  Cyclospora cayetanesis  | - | - | 0 | 0.999 |
|  Entamoeba histolytica | - | - | 0 | 0.999 |
|  Giardia lamblia | 0.28 (0.09-1.51) | 0.161 | 0.27 (0.02-1.25) | 0.078 |
| Multiple pathogens | 0.90 (0.61-1.32) | 0.765 | 0.52 (0.41-1.03) | 0.061 |

\*Crohn’s disease compared to no inflammatory bowel disease

+Ulcerative colitis compared to no inflammatory bowel disease

#Crohn’s disease compared to Ulcerative colitis