# Appendix 2- Univariate logistic regression results

Table 1: Univariate logistic regression results

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Level** | **Not prescribed an antibiotic** | **Prescribed an antibiotic** | **Total** | **OR** | **SE** | **95% CI** | **P-value** | **Collective P-value** |
| **#** | **%** | **#** | **%** | **#** |
| **Year** | 2015 | 600 | 48% | 653 | 52% | 1253 | Referent | 0.092 |
| 2016 | 650 | 47% | 730 | 53% | 1380 | 1.03 | 0.08 | 0.89-1.2 | 0.688 |
| 2017 | 671 | 49% | 693 | 51% | 1364 | 0.95 | 0.07 | 0.81-1.11 | 0.503 |
| 2018 | 702 | 50% | 689 | 50% | 1391 | 0.90 | 0.07 | 0.77-1.05 | 0.185 |
| 2019 | 765 | 52% | 713 | 48% | 1478 | 0.86 | 0.07 | 0.74-1 | 0.044 |
| **Season** | Winter | 682 | 48% | 731 | 52% | 1413 | Referent | 0.660 |
| Spring | 871 | 50% | 867 | 50% | 1738 | 0.94 | 0.07 | 0.81-1.08 | 0.364 |
| Summer | 1111 | 50% | 1123 | 50% | 2234 | 0.95 | 0.06 | 0.83-1.09 | 0.466 |
| Fall | 693 | 48% | 736 | 52% | 1429 | 1.01  | 0.08 | 0.87-1.17 |  0.903 |
| **Urban** | No | 1155 | 48% | 1262 | 52% | 2417 | Referent | 0.057 |
| Yes | 2233 | 50% | 2216 | 50% | 4449 | 0.91 | 0.05 | 0.82-1 | 0.057 |
| **Site** | X | 443 | 38% | 721 | 62% | 1164 | 1.48 | 0.10 | 1.29-1.69 | <0.001 | <0.001 |
| Y | 1191 | 59% | 822 | 41% | 2013 | 0.63 | 0.04 | 0.56-0.7 | <0.001 |
| Z | 1754 | 48% | 1935 | 52% | 3689 | Referent |
| **Age category** | <12 months | 70 | 56% | 56 | 44% | 126 | 0.62 | 0.12 | 0.43-0.89 | 0.011 | <0.001 |
| 1 to 4 | 472 | 65% | 258 | 35% | 730 | 0.42 | 0.04 | 0.35-0.51 | <0.001 |
| 5 to 19 | 636 | 61% | 408 | 39% | 1044 | 0.50 | 0.04 | 0.42-0.59 | <0.001 |
| 20 to 34 | 848 | 50% | 849 | 50% | 1697 | 0.77 | 0.06 | 0.67-0.9 | 0.001 |
| 35 to 49  | 514 | 44% | 666 | 56% | 1180 | Referent |
| 49 to 64 | 480 | 39% | 742 | 61% | 1222 | 1.19 | 0.10 | 1.01-1.4 | 0.033 |
| 65+ | 370 | 43% | 500 | 57% | 870 | 1.04 | 0.09 | 0.87-1.24 | 0.641 |
| **Gender** | Female | 1553 | 48% | 1696 | 52% | 3249 | Referent | 0.015 |
| Male | 1837 | 51% | 1783 | 49% | 3620 | 0.89 | 0.04 | 0.81-0.98 | 0.015 |
| **Source of isolate** | Blood | 10 | 7% | 140 | 93% | 150 | 14.40 | 4.73 | 7.57-27.41 | <0.001 | <0.001 |
| Stool | 3360 | 51% | 3266 | 49% | 6626 | Referent |
| Urine | 13 | 17% | 65 | 83% | 78 | 5.14 | 1.57 | 2.83-9.35 | <0.001 |
| Other | 7 | 47% | 8 | 53% | 15 | 1.18 | 0.61 | 0.43-3.25 | 0.755 |
| **Abdominal pain** | No | 578 | 46% | 666 | 54% | 1244 | Referent | 0.027 |
| Yes | 2673 | 50% | 2679 | 50% | 5352 | 0.87 | 0.05 | 0.77-0.98 | 0.027 |
| **Abdominal bloating** | No | 1952 | 53% | 1729 | 47% | 3681 | Referent | <0.001 |
| Yes | 1111 | 43% | 1455 | 57% | 2566 | 1.48 | 0.08 | 1.34-1.64 | <0.001 |
| **Chills** | No | 1713 | 54% | 1441 | 46% | 3154 | Referent | <0.001 |
| Yes | 1480 | 45% | 1841 | 55% | 3321 | 1.48 | 0.07 | 1.34-1.63 | <0.001 |
| **Dehydrated** | No | 1911 | 53% | 1702 | 47% | 3613 | Referent | <0.001 |
| Yes | 1267 | 45% | 1532 | 55% | 2799 | 1.36 | 0.07 | 1.23-1.5 | <0.001 |
| **Diarrhea** | No | 243 | 54% | 204 | 46% | 447 | Referent | 0.028 |
| Yes | 3138 | 49% | 3269 | 51% | 6407 | 1.24 | 0.12 | 1.02-1.5 | 0.028 |
| **Bloody diarrhea** | No | 2227 | 49% | 2333 | 51% | 4560 | Referent | 0.092 |
| Yes | 1023 | 51% | 979 | 49% | 2002 | 0.91 | 0.05 | 0.82-1.01 | 0.092 |
| **Dizziness** | No | 2160 | 51% | 2089 | 49% | 4249 | Referent | <0.001 |
| Yes | 875 | 45% | 1075 | 55% | 1950 | 1.27 | 0.07 | 1.14-1.41 | <0.001 |
| **Fatigue** | No | 979 | 52% | 903 | 48% | 1882 | Referent | 0.008 |
| Yes | 2292 | 48% | 2444 | 52% | 4736 | 1.16 | 0.06 | 1.04-1.29 | 0.008 |
| **Fever** | No | 1479 | 52% | 1368 | 48% | 2847 | Referent | <0.001 |
| Yes | 1758 | 47% | 1949 | 53% | 3707 | 1.20 | 0.06 | 1.09-1.32 | <0.001 |
| **Headache** | No | 1753 | 52% | 1638 | 48% | 3391 | Referent | <0.001 |
| Yes | 1326 | 46% | 1564 | 54% | 2890 | 1.26 | 0.06 | 1.14-1.39 | <0.001 |
| **Joint pain** | No | 2386 | 51% | 2320 | 49% | 4706 | Referent | <0.001 |
| Yes | 584 | 43% | 766 | 57% | 1350 | 1.35 | 0.08 | 1.19-1.52 | <0.001 |
| **Anorexia** | No | 1340 | 52% | 1218 | 48% | 2558 | Referent | <0.001 |
| Yes | 1961 | 48% | 2128 | 52% | 4089 | 1.19 | 0.06 | 1.08-1.32 | <0.001 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Level** | **Not prescribed an antibiotic** | **Prescribed an antibiotic** | **Total** | **OR** | **SE** | **95% CI** | **P-value** | **Collective P-value** |
| **#** | **%** | **#** | **%** | **#** |
| **Weight loss** | No | 1732 | 53% | 1546 | 47% | 3278 | Referent | <0.001 |
| Yes | 1271 | 45% | 1529 | 55% | 2800 | 1.35 | 0.07 | 1.22-1.49 | <0.001 |
| **Muscle pain** | No | 2231 | 52% | 2087 | 48% | 4318 | Referent | <0.001 |
| Yes | 782 | 43% | 1054 | 57% | 1836 | 1.44 | 0.08 | 1.29-1.61 | <0.001 |
| **Nausea** | No | 1514 | 53% | 1350 | 47% | 2864 | Referent | <0.001 |
| Yes | 1668 | 46% | 1965 | 54% | 3633 | 1.32 | 0.07 | 1.2-1.46 | <0.001 |
| **Bloody stool** | No | 1779 | 49% | 1886 | 51% | 3665 | Referent | 0.663 |
| Yes | 62 | 47% | 71 | 53% | 133 | 1.08 | 0.19 | 0.76-1.53 | 0.663 |
| **Vomiting** | No | 2285 | 50% | 2298 | 50% | 4583 | Referent | 0.265 |
| Yes | 1046 | 48% | 1115 | 52% | 2161 | 1.06 | 0.06 | 0.96-1.17 | 0.265 |
| **ER visit** | No | 1969 | 53% | 1730 | 47% | 3699 | Referent | <0.001 |
| Yes | 1415 | 45% | 1741 | 55% | 3156 | 1.40 | 0.07 | 1.27-1.54 | <0.001 |
| **Hospitalization** | No | 3196 | 51% | 3018 | 49% | 6214 | Referent | <0.001 |
| Yes | 181 | 29% | 438 | 71% | 619 | 2.56 | 0.24 | 2.14-3.07 | <0.001 |
| **International travel** | No | 2442 | 52% | 2286 | 48% | 4728 | Referent | <0.001 |
| Yes | 933 | 44% | 1179 | 56% | 2112 | 1.35 | 0.07 | 1.22-1.5 | <0.001 |
| **Duration of illness** | <=1 week | 656 | 59% | 462 | 41% | 1118 | Referent | <0.001 |
| >1week | 777 | 45% | 967 | 55% | 1744 | 1.77 | 0.14 | 1.52-2.06 | <0.001 |
| Still ill <=1 week | 491 | 57% | 367 | 43% | 858 | 1.06 | 0.10 | 0.89-1.27 | 0.517 |
| Still ill >1week | 1436 | 46% | 1664 | 54% | 3100 | 1.65 | 0.12 | 1.43-1.89 | <0.001 |
| **Causative pathogen** | Campylobacter | 1085 | 43% | 1410 | 57% | 2495 | 1.35 | 0.08 | 1.2-1.52 | <0.001 | <0.001 |
| Cryptosporidia | 252 | 71% | 101 | 29% | 353 | 0.42 | 0.05 | 0.33-0.53 | <0.001 |
| Cyclosporium | 15 | 24% | 47 | 76% | 62 | 3.25 | 0.98 | 1.81-5.85 | <0.001 |
| Giardia | 340 | 37% | 570 | 63% | 910 | 1.74 | 0.14 | 1.48-2.04 | <0.001 |
| Salmonella | 1042 | 51% | 1004 | 49% | 2046 | Referent |
| Shigella | 82 | 40% | 123 | 60% | 205 | 1.56 | 0.23 | 1.16-2.09 | 0.003 |
| STEC | 330 | 81% | 77 | 19% | 407 | 0.24 | 0.03 | 0.19-0.31 | <0.001 |
| Yersinia | 244 | 62% | 147 | 38% | 391 | 0.63 | 0.07 | 0.5-0.78 | <0.001 |