Appendix 1. Multivariate logistic regression of the top-9 persistent symptoms of COVID-19.

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| --- | --- | --- | --- | --- | --- |
| **items** | **Fatigue** | **Cough** | **Headaches** | **Dizziness** | **Chest tightness or shortness of breath** |
| **OR (95%CI)** | ***P-value*** | **OR (95%CI)** | ***P-value*** | **OR (95%CI)** | ***P-value*** | **OR (95%CI)** | ***P-value*** | **OR (95%CI)** | ***P-value*** |
| **Repeated COVID-19 infection** |  |  |  |  |  |  |  |  |  |  |
| Once infection |  |  |  |  |  |  |  |  |  |  |
| Repeated COVID-19 infection / Reinfection | 1.30 (0.92-1.85) | 0.140  | 1.36 (0.96-1.92) | 0.084  | 1.50 (1.02-2.21) | 0.037  | 1.36 (0.90-2.06) | 0.138  | 1.28 (0.83-1.97) | 0.269  |
| **Gender** |  |  |  |  |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |  |  |  |  |
| Female | 0.78 (0.61-1.00) | 0.049  | 0.96 (0.75-1.23) | 0.769  | 0.98 (0.74-1.32) | 0.911  | 1.15 (0.84-1.57) | 0.376  | 1.02 (0.74-1.41) | 0.905  |
| **Age** |  |  |  |  |  |  |  |  |  |  |
| less than 30 |  |  |  |  |  |  |  |  |  |  |
| 30-44 | 1.00 (0.76-1.31) | 0.993  | 1.05 (0.80-1.39) | 0.702  | 0.87 (0.63-1.19) | 0.384  | 1.05 (0.74-1.47) | 0.793  | 1.06 (0.74-1.52) | 0.751  |
| 45 and above | 0.84 (0.58-1.22) | 0.367  | 1.00 (0.70-1.45) | 0.980  | 0.78 (0.51-1.20) | 0.264  | 1.02 (0.64-1.61) | 0.938  | 1.60 (1.01-2.55) | 0.046  |
| **Educational level** |  |  |  |  |  |  |  |  |  |  |
| Junior high school and below |  |  |  |  |  |  |  |  |  |  |
| Senior high school / Technical secondary school | 1.15 (0.80-1.64) | 0.452  | 0.93 (0.65-1.32) | 0.677  | 0.92 (0.61-1.39) | 0.690  | 0.82 (0.53-1.28) | 0.389  | 1.71 (1.04-2.80) | 0.034  |
| University / College and above | 1.27 (0.93-1.73) | 0.128  | 0.87 (0.64-1.18) | 0.359  | 0.83 (0.58-1.18) | 0.302  | 0.90 (0.62-1.31) | 0.585  | 1.94 (1.25-3.01) | 0.003  |
| **Interval from initial infection to investigation** |  |  |  |  |  |  |  |  |  |  |
| < 6 months |  |  |  |  |  |  |  |  |  |  |
| 6 months to 1 year | 1.20 (0.77-1.86) | 0.428  | 1.18 (0.76-1.85) | 0.459  | 0.93 (0.55-1.56) | 0.774  | 0.91 (0.52-1.58) | 0.734  | 1.09 (0.61-1.93) | 0.779  |
| > 1 year | 0.76 (0.46-1.26) | 0.291  | 0.99 (0.60-1.64) | 0.964  | 1.16 (0.65-2.07) | 0.626  | 1.15 (0.62-2.12) | 0.665  | 0.81 (0.41-1.57) | 0.529  |
| **Way of diagnosis** |  |  |  |  |  |  |  |  |  |  |
| Self-speculation |  |  |  |  |  |  |  |  |  |  |
| Antigen detection | 0.82 (0.58-1.17) | 0.280  | 1.00 (0.70-1.42) | 0.989  | 0.86 (0.57-1.29) | 0.467  | 0.63 (0.42-0.95) | 0.028  | 1.05 (0.64-1.72) | 0.849  |
| Nucleic acid test (NAT) | 0.99 (0.68-1.44) | 0.971  | 1.30 (0.89-1.88) | 0.173  | 0.88 (0.58-1.35) | 0.572  | 0.69 (0.45-1.06) | 0.093  | 1.64 (0.99-2.71) | 0.056  |

Appendix 1. Multivariate logistic regression of the top-9 persistent symptoms of COVID-19 (continued).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **items** | **Muscle pain** | **Loss of or change in smell and/or taste** | **Impaired sleep** | **Brain fog (such as problems concentrating or thinking)** |
| **OR (95%CI)** | ***P-value*** | **OR (95%CI)** | ***P-value*** | **OR (95%CI)** | ***P-value*** | **OR (95%CI)** | ***P-value*** |
| **Repeated COVID-19 infection** |  |  |  |  |  |  |  |  |
| Once infection |  |  |  |  |  |  |  |  |
| Repeated COVID-19 infection / Reinfection | 1.22 (0.79-1.88) | 0.361  | 1.95 (1.29-2.93) | 0.001  | 1.63 (1.07-2.48) | 0.023  | 1.73 (1.09-2.73) | 0.019  |
| **Gender** |  |  |  |  |  |  |  |  |
| Male |  |  |  |  |  |  |  |  |
| Female | 1.00 (0.73-1.38) | 0.976  | 0.67 (0.48-0.92) | 0.013  | 1.14 (0.82-1.59) | 0.423  | 1.04 (0.72-1.50) | 0.847  |
| **Age** |  |  |  |  |  |  |  |  |
| less than 30 |  |  |  |  |  |  |  |  |
| 30-44 | 1.13 (0.79-1.63) | 0.494  | 1.11 (0.78-1.59) | 0.558  | 0.87 (0.60-1.26) | 0.468  | 1.87 (1.20-2.91) | 0.006  |
| 45 and above | 1.29 (0.81-2.05) | 0.286  | 0.82 (0.50-1.34) | 0.432  | 1.81 (1.15-2.86) | 0.011  | 2.40 (1.38-4.19) | 0.002  |
| **Educational level** |  |  |  |  |  |  |  |  |
| Junior high school and below |  |  |  |  |  |  |  |  |
| Senior high school / Technical secondary school | 0.80 (0.51-1.24) | 0.318  | 0.54 (0.33-0.89) | 0.016  | 1.26 (0.75-2.13) | 0.376  | 0.94 (0.51-1.73) | 0.848  |
| University / College and above | 0.75 (0.51-1.11) | 0.147  | 0.87 (0.59-1.28) | 0.480  | 2.05 (1.32-3.19) | 0.001  | 1.95 (1.19-3.20) | 0.008  |
| **Interval from initial infection to investigation** |  |  |  |  |  |  |  |  |
| < 6 months |  |  |  |  |  |  |  |  |
| 6 months to 1 year | 1.10 (0.60-2.02) | 0.749  | 1.10 (0.61-1.98) | 0.760  | 1.03 (0.58-1.85) | 0.912  | 1.53 (0.74-3.18) | 0.252  |
| > 1 year | 1.65 (0.85-3.20) | 0.138  | 0.79 (0.40-1.56) | 0.497  | 0.89 (0.46-1.75) | 0.744  | 1.38 (0.61-3.13) | 0.444  |
| **Way of diagnosis** |  |  |  |  |  |  |  |  |
| Self-speculation |  |  |  |  |  |  |  |  |
| Antigen detection | 0.85 (0.55-1.30) | 0.452  | 1.53 (0.91-2.56) | 0.107  | 1.06 (0.65-1.72) | 0.822  | 2.14 (1.12-4.07) | 0.021  |
| Nucleic acid test (NAT) | 0.61 (0.38-0.97) | 0.036  | 1.59 (0.93-2.71) | 0.091  | 0.98 (0.59-1.63) | 0.935  | 1.85 (0.94-3.62) | 0.074  |