**SUPPLEMENTARY MATERIAL**

**Table S1. The output of linear mixed model analyzing COVID-19 effect on inpatient hospital stay (N=63011 cases)**

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| **S4 Model Terms** | **Estimate ± SE** | **t value** | **P value** |
| Intercept | 3.554 ± 0.042 | 84.779 | <0.01 |
| COVID-19 year - Yes | 0.120 ± 0.011 | 11.018 | <0.01 |
| Country lockdown - Yes | 0.207 ± 0.018 | 11.668 | <0.01 |
| District lockdown - Yes | 0.133 ± 0.022 | 5.987 | <0.01 |
| Hospital level - Provincial Hospitals | 0.200 ± 0.020 | 9.924 | <0.01 |
| Hospital level - Referral Hospitals | -0.605 ± 0.014 | -43.747 | <0.01 |
| Hospital level - University Teaching Hospitals | 0.079 ± 0.018 | 4.384 | <0.01 |
| Hospital level - Private Hospitals | -0.608 ± 0.018 | -33.035 | <0.01 |
| Timing - Emergency | -0.002 ± 0.010 | -0.219 | 0.826 |
| Age - 11 to 20 | 0.006 ± 0.045 | 0.139 | 0.89 |
| Age - 21 to 30 | 0.124 ± 0.041 | 3.013 | <0.01 |
| Age - 31 to 40 | 0.125 ± 0.041 | 3.047 | <0.01 |
| Age - 41 to 50 | 0.077 ± 0.044 | 1.747 | 0.081 |
| Age - 51 and above | 0.155 ± 0.047 | 3.291 | <0.01 |
| Gender - Male | 0.168 ± 0.044 | 3.828 | <0.01 |
| Age\*Gender - 11 to 20\*Male | 0.056 ± 0.059 | 0.953 | 0.341 |
| Age\*Gender - 21 to 30\*Male | -0.022 ± 0.055 | -0.396 | 0.692 |
| Age\*Gender - 31 to 40\*Male | 0.016 ± 0.055 | 0.29 | 0.772 |
| Age\*Gender - 41 to 50\*Male | 0.016 ± 0.059 | 0.166 | 0.243 |
| Age\*Gender - 51 and above\*Male | -0.018 ± 0.058 | -0.308 | 0.758 |
| General surgery - Yes | -0.106 ± 0.018 | -5.938 | <0.01 |
| Urology - Yes | -0.475 ± 0.042 | -11.294 | <0.01 |
| Orthopedics - Yes | 0.078 ± 0.021 | 3.671 | <0.01 |
| ENT - Yes | -0.145 ± 0.022 | -6.731 | <0.01 |
| Neurosurgery - Yes | -0.048 ± 0.061 | -0.797 | 0.426 |
| Plastic surgery - Yes | -0.146 ± 0.062 | -2.366 | 0.018 |
| Obstetrics and Gynecology - Yes | 1.579 ± 0.055 | 28.625 | <0.01 |
| Pediatric surgery - Yes | -0.332 ± 0.021 | -15.592 | <0.01 |
| Maxillo-facial surgery - Yes | -0.334 ± 0.055 | -6.099 | <0.01 |
| Ophthalmology - Yes | 1.579 ± 0.055 | 28.625 | <0.01 |
| Cardiothoracic surgery - Yes | -0.007 ± 0.031 | -0.218 | 0.827 |
| Other surgeries - Yes | -0.930 ± 0.071 | -13.106 | <0.01 |

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| **S5 Model terms** | **Dead status** | | | | **Transferred Status** | | | |
| **Estimate ± SE** | **Z value** | **P value** | **Adjusted RR (95% CI)** | **Estimate ± SE** | **Z value** | **P value** | **Adjusted RR (95% CI)** |
| *Intercept* | *- 3.79 ± 0.461* | *- 8.223* | *<0.01* | *0.02 (0.01-0.06* | *- 2.53 ± 0.378* | *- 6.707* | *<0.01* | *0.08 (0.04-0.17)* |
| Covid-19 year–Yes | - 0.4.92 ± 0.1307 | -3.768 | <0.01 | 0.61 (0.47-0.79) | -0.598± 0.0732 | -8.171 | <0.01 | 0.55 (0.48-0.63) |
| Country lockdown – Yes | -0.744± 0.313 | -2.377 | 0.017 | 0.48 (0.26-0.88) | -1.030± 0.159 | -6.469 | <0.01 | 0.36 (0.26-0.49) |
| District lockdown –Yes | 0.646± 0.232 | 2.784 | <0.01 | 1.91 (1.21-3.00 | 1.108± 0.114 | 9.712 | <0.01 | 3.03 (2.42-3.79) |
| Provincial Hospitals | -1.54± 0.263 | -5.862 | <0.01 | 0.21 (0.12-0.36) | -1.80± 0.171 | -10.55 | <0.01 | 0.16 (0.12-0.23) |
| Referral Hospitals | 1.72± 0.152 | -11.306 | <0.01 | 0.18 (0.13-0.24) | -3.08± 0.130 | -23.689 | <0.01 | 0.05 (0.04-0.06) |
| University Teaching Hospitals | -2.44± 0.239 | -10.201 | <0.01 | 0.09 (0.05-0.14) | -2.22± 0.121 | -18.408 | <0.01 | 0.11 (0.09-0.14) |
| Private Hospitals | -3.53±0.483 | -7.297 | <0.01 | 0.03 (0.01-0.08) | -3.10±0.193 | -16.037 | <0.01 | 0.05 (0.03-0.07) |
| Timing as Emergency | 0.117±0.118 | 0.991 | 0.322 | 1.12 (0.89-1.42) | -0.544±0.061 | -8.929 | <0.01 | 0.58 (0.51-0.65) |
| Age 11-20 years | 0.993±0.472 | 2.1056 | 0.035 | 2.70 (1.07-6.81) | 0.786±0.396 | 1.986 | 0.047 | 2.20 (1.01-4.77 |
| Age 21-30 years | 0.262±0.462 | 0.568 | 0.570 | 1.30 (0.53-3.22) | 0.701±0.387 | 1.811 | 0.070 | 2.01 (0.94-4.30) |
| Age 31-40 years | 0.153±0.464 | 0.330 | 0.741 | 1.17 (0.47-2.89) | 0.771±0.387 | 1.99 | 0.046 | 2.16 (1.01-4.61 |
| Age 41-50 years | 0.413±0.486 | 0.850 | 0.396 | 1.51 (0.58-3.92) | 0.895±0.394 | 2.272 | 0.023 | 2.45 (1.13-5.30 |
| Age 51 and above | 1.37±0.470 | 2.908 | 0.004 | 3.93 (1.56-9.88) | 1.33±0.412 | 3.236 | 0.001 | 3.79 (1.69-8.50) |
| Gender Male | -0.589±0.651 | -0.442 | 0.658 | 0.81 (0.31-2.09) | -0.038±0.546 | -0.967 | 0.334 | 0.66 (0.28-0. |
| Age\*Gender Male 11-20 years | -0.589±0.651 | -0.905 | 0.365 | 0.55 (0.15-1.99) | -0.038±0.546 | -0.070 | 0.944 | 0.96 (0.30-2.81 |
| Age\*Gender Male 21-30 years | -0.408±0.710 | -0575 | 0.565 | 0.66 (0.16-2.67) | -0.005±0.546 | -0.009 | 0.993 | 1.00 (0.34-2.90) |
| Age\*Gender Male 31-40 years | 0.437±0.621 | 0.703 | 0.482 | 1.55 (0.46-5.23) | 0.305±0.519 | 0.587 | 0.557 | 1.36 (0.49-3.75) |
| Age\*Gender Male 41-50 years | -0.747±0.825 | -0.905 | 0.366 | 0.47 (0.09-2.39) | 0.639±0.522 | 1.224 | 0.221 | 1.90 (0.68-5.28) |
| Age\*Gender Male 51 and above | -0.091±0.567 | -0.161 | 0.872 | 0.91 (0.30-2.77) | -0.417±0.525 | -0.795 | 0.426 | 0.66 (0.24-1.84) |
| General Surgery –Yes | 0.051±0.237 | 0.215 | 0.830 | 1.05 (0.66-1.68) | -0.920±0.164 | -5.608 | <0.01 | 0.40 (0.29-055) |
| Urology –Yes | 0.0107±0.460 | 0.233 | 0.816 | 1.11 (0.45-2.74) | -0.258±0.344 | -0751 | 0.453 | 0.77 (0.39-1.52) |
| Orthopedics –Yes | -0.657±0.342 | -1.921 | 0.055 | 0.52 (0.26-1.01) | -0.787±0.234 | -3.368 | 0.001 | 0.46 (0.29-0.72) |
| ENT –Yes | -1.731±0.394 | <0.01-4.392 | <0.01 | 0.18 (0.08-0.38) | -0.632±0.205 | -3.083 | <0.01 | 0.53 (0.36-0.79) |
| Neurosurgey –Yes | 1.367±0.330 | <0.014.146 | <0.01 | 3.92 (2.06-7.49) | 0.314±0.316 | 0.995 | 0.320 | 1.37 (0.74-2.54) |
| Plastic Surgery –Yes | 1.54±0.510 | <0.013.009 | <0.01 | 4.64 (1.71-12.62) | 1.10±0.435 | 2.520 | 0.012 | 3.00 (1.28-7.03) |
| Obstetrics and Gynecology–Yes | -0.598±0.267 | -2.242 | 0.025 | 0.55 (0.33-0.93 | -0.228±0.182 | -1.255 | 0.209 | 0.80 (0.56-1.14) |
| Pediatric Surgery –Yes | -1.008±0.671 | -1.502 | 0.133 | 0.36 (0.10-1.36) | 0.015±0.529 | 0.028 | 0978 | 1.01 (0.36-2.86 |
| Maxillo-facial surgery –Yes | 2.07±0.592 | <0.013.503 | <0.01 | 7.96 (2.49-25.39) | 1.83±0.421 | 4.348 | <0.01 | 6.23 (2.73-14.22 |
| Ophtalmology –Yes | -0.664±0.658 | -1.010 | 0.312 | 0.51 (0.14-1.87) | -0.815±0.357 | -2.280 | 0.023 | 0.44 (0.22-0.89) |
| Cardiothoracic surgery–Yes | 0.866±0.649 | 1.334 | 0.182 | 2.38 (0.67-8.48) | 1.538±0.472 | 3.258 | <0.01 | 4.65 (1.85-11.74) |

**Table S2. Output of multinomial logistic regression testing the effect of COVID-19 on inpatient status at discharge (N=64260 cases). Alive at discharge is set as the reference level.**