Table 3. Mortality risk factors in patient with COVID-19 and T2DM

| **Characteristic** | **Univariate OR**1 | **95% CI**1 | **p value** | **Multivariable OR**1 | **95% CI**1 | **p value** | **GVIF**1 | **aGVIF**12 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Age (years)** |  |  |  |  |  |  | 1.2 | 1.1 |
| < 61 | — | — |  | — | — |  |  |  |
| = 61 | 2.80 | 1.63, 4.90 | **<0.001** | 1.71 | 0.77, 3.83 | 0.188 |  |  |
| **Sex** |  |  |  |  |  |  |  |  |
| Female | — | — |  |  |  |  |  |  |
| Male | 0.79 | 0.45, 1.37 | 0.394 |  |  |  |  |  |
| **Obesity** |  |  |  |  |  |  | 1.2 | 1.1 |
| No | — | — |  | — | — |  |  |  |
| Yes | 0.40 | 0.17, 0.89 | **0.030** | 0.38 | 0.11, 1.23 | 0.114 |  |  |
| **Hypertension** |  |  |  |  |  |  | 1.3 | 1.1 |
| No | — | — |  | — | — |  |  |  |
| Yes | 1.83 | 1.05, 3.21 | **0.035** | 1.37 | 0.59, 3.21 | 0.471 |  |  |
| **Fever** |  |  |  |  |  |  |  |  |
| No | — | — |  |  |  |  |  |  |
| Yes | 1.63 | 0.94, 2.84 | 0.082 |  |  |  |  |  |
| **Dry cought** |  |  |  |  |  |  |  |  |
| No | — | — |  |  |  |  |  |  |
| Yes | 1.39 | 0.74, 2.66 | 0.305 |  |  |  |  |  |
| **Tachypnea** |  |  |  |  |  |  | 1.5 | 1.2 |
| No | — | — |  | — | — |  |  |  |
| Yes | 0.49 | 0.27, 0.86 | **0.015** | 1.11 | 0.45, 2.81 | 0.816 |  |  |
| **Dyspnea** |  |  |  |  |  |  | 1.4 | 1.2 |
| No | — | — |  | — | — |  |  |  |
| Yes | 5.59 | 2.04, 19.70 | **0.002** | 7.68 | 1.77, 40.89 | **0.010** |  |  |
| **Lung crackles** |  |  |  |  |  |  | 1.7 | 1.3 |
| No | — | — |  | — | — |  |  |  |
| Yes | 0.38 | 0.22, 0.66 | **<0.001** | 0.21 | 0.08, 0.55 | **0.002** |  |  |
| **Respiratory rate (BPM)** |  |  |  |  |  |  |  |  |
| 24 - 30 | — | — |  |  |  |  |  |  |
| < 24 | 0.61 | 0.31, 1.19 | 0.154 |  |  |  |  |  |
| 30 | 1.85 | 0.94, 3.69 | 0.077 |  |  |  |  |  |
| **Heart rate (BPM)** |  |  |  |  |  |  | 1.2 | 1.1 |
| < 100 | — | — |  | — | — |  |  |  |
| = 100 | 2.51 | 1.45, 4.39 | **0.001** | 2.23 | 1.00, 5.11 | 0.053 |  |  |
| **SBP (mmHg)** |  |  |  |  |  |  | 1.1 | 1.0 |
| < 140 | — | — |  | — | — |  |  |  |
| = 140 | 2.69 | 1.26, 6.05 | **0.012** | 1.68 | 0.57, 5.24 | 0.355 |  |  |
| **DBP (mmHg)** |  |  |  |  |  |  |  |  |
| < 90 | — | — |  |  |  |  |  |  |
| = 90 | 2.44 | 1.02, 6.26 | 0.051 |  |  |  |  |  |
| **White-cells (×10−9/L)** |  |  |  |  |  |  |  |  |
| 4-10 | — | — |  |  |  |  |  |  |
| < 4 | 0.50 | 0.11, 1.69 | 0.304 |  |  |  |  |  |
| 10 | 4.14 | 2.29, 7.66 | **<0.001** |  |  |  |  |  |
| **Neutrophils (×10−9/L)** |  |  |  |  |  |  | 1.2 | 1.1 |
| <= 6.3 | — | — |  | — | — |  |  |  |
| 6.3 | 7.01 | 3.43, 15.60 | **<0.001** | 8.17 | 3.16, 23.62 | **<0.001** |  |  |
| **Lymphocytes (×10−9/L)** |  |  |  |  |  |  | 1.3 | 1.1 |
| = 1 | — | — |  | — | — |  |  |  |
| < 1 | 1.71 | 1.00, 2.96 | 0.053 | 1.87 | 0.82, 4.41 | 0.143 |  |  |
| **Platelets (×10−9/L)** |  |  |  |  |  |  |  |  |
| = 125 | — | — |  |  |  |  |  |  |
| < 125 | 0.85 | 0.29, 2.37 | 0.757 |  |  |  |  |  |
| **MCV (mm3)** | 1.04 | 0.99, 1.10 | 0.143 |  |  |  |  |  |
| **MCH (pg)** | 1.17 | 1.02, 1.34 | **0.026** | 1.14 | 0.94, 1.39 | 0.180 | 1.3 | 1.1 |
| **Hemoglobin (g/dL)** |  |  |  |  |  |  | 1.3 | 1.1 |
| 12 | — | — |  | — | — |  |  |  |
| <= 12 | 2.18 | 1.17, 4.13 | **0.015** | 3.24 | 1.30, 8.56 | **0.014** |  |  |
| **Hematocrit (%)** |  |  |  |  |  |  |  |  |
| = 36 | — | — |  |  |  |  |  |  |
| < 36 | 2.40 | 1.23, 4.83 | **0.012** |  |  |  |  |  |
| **Serum creatinine (mg/dL)** |  |  |  |  |  |  |  |  |
| < 1.3 | — | — |  |  |  |  |  |  |
| = 1.3 | 2.28 | 1.23, 4.31 | **0.010** |  |  |  |  |  |
| **BUN (mg/dL)** |  |  |  |  |  |  | 1.1 | 1.1 |
| < 20 | — | — |  | — | — |  |  |  |
| = 20 | 3.44 | 1.30, 10.78 | **0.020** | 0.90 | 0.19, 4.55 | 0.894 |  |  |
| **SaO2** |  |  |  |  |  |  | 1.4 | 1.2 |
| = 94 | — | — |  | — | — |  |  |  |
| < 94 | 1.95 | 1.06, 3.67 | **0.034** | 0.80 | 0.30, 2.12 | 0.661 |  |  |
| **FiO2 (%)** | 1.02 | 1.01, 1.04 | **<0.001** |  |  |  |  |  |
| **PaO2:FiO2 ratio** |  |  |  |  |  |  | 1.2 | 1.1 |
| 200 | — | — |  | — | — |  |  |  |
| <= 200 | 2.14 | 1.24, 3.73 | **0.006** | 1.34 | 0.60, 3.05 | 0.474 |  |  |
| **PaO2 (mmHg)** |  |  |  |  |  |  | 1.2 | 1.1 |
| = 60 | — | — |  | — | — |  |  |  |
| < 60 | 7.45 | 3.62, 16.70 | **<0.001** | 7.46 | 2.83, 21.86 | **<0.001** |  |  |
| **PCO2 (mmHg)** | 0.97 | 0.93, 1.01 | 0.115 |  |  |  |  |  |
| **HCO3 (mmol/L)** |  |  |  |  |  |  | 1.4 | 1.1 |
| 21 - 28 | — | — |  | — | — |  |  |  |
| < 21 | 2.10 | 1.20, 3.72 | **0.010** | 1.49 | 0.65, 3.41 | 0.346 |  |  |
| 28 | 1.72 | 0.45, 6.62 | 0.419 | 2.25 | 0.35, 13.87 | 0.376 |  |  |
| **Corticosteroids** |  |  |  |  |  |  | 1.2 | 1.1 |
| No | — | — |  | — | — |  |  |  |
| Yes | 2.00 | 1.02, 4.08 | **0.049** | 1.65 | 0.61, 4.57 | 0.326 |  |  |
| **Anticoagulants** |  |  |  |  |  |  |  |  |
| No | — | — |  |  |  |  |  |  |
| Enoxaparin | 1.30 | 0.56, 3.16 | 0.547 |  |  |  |  |  |
| **Antiparasitics** |  |  |  |  |  |  |  |  |
| No | — | — |  |  |  |  |  |  |
| Ivermectin | 0.55 | 0.28, 1.07 | 0.082 |  |  |  |  |  |
| **Antimalarials** |  |  |  |  |  |  |  |  |
| No | — | — |  |  |  |  |  |  |
| Hydroxychloroquine | 1.51 | 0.88, 2.59 | 0.132 |  |  |  |  |  |
| **Pronation** |  |  |  |  |  |  |  |  |
| Yes | — | — |  |  |  |  |  |  |
| No | 1.35 | 0.79, 2.31 | 0.277 |  |  |  |  |  |
| 1OR = Odds Ratio, CI = Confidence Interval, GVIF = Generalized Variance Inflation Factor | | | | | | | | |
| 2aGVIF = adjusted GVIF or GVIF^[1/(2\*df)] | | | | | | | | |
| Null deviance = 300; Null df = 216; Log-likelihood = -90.7; AIC = 221; BIC = 289; Deviance = 181; Residual df = 197; No. Obs. = 217 | | | | | | | | |