

Supplementary Table S1. Demographic, clinical, and biochemical characteristics of patients who received antimicrobial prescriptions, according to the presence of bacterial infection.

| | Bacterial infection | No bacterial infection | P value |
|---|---------------------|------------------------|------------------|
| N° of patients | 155 | 323 | |
| Mean age (SD), years | 63.2 (16.9) | 66.2 (15.5) | 0.06 |
| Males, n° (%) | 106 (68.4) | 200 (61.9) | 0.17 |
| Mean length of hospital stay (SD), days | 17.6 (10.6) | 16.1 (10.4) | 0.12 |
| Admitted to ID wards, n° (%) | 151 (97.4) | 277 (85.8) | <0.001 |
| Charlson Comorbidity Index (median, range) | 3 (4) | 3 (4) | 0.46 |
| Comorbidities, n° (%) | | | |
| - Cardiovascular disease | 49 (31.6) | 99 (30.6) | 0.88 |
| - Diabetes | 40 (25.8) | 77 (23.8) | 0.68 |
| - COPD | 14 (9) | 36 (11.1) | 0.46 |
| - Chronic kidney disease | 25 (16.1) | 34 (10.5) | 0.08 |
| - Chronic liver disease | 12 (7.7) | 12 (3.7) | 0.09 |
| - Malignancies | 14 (9) | 29 (9) | 0.99 |
| - HIV | 2 (1.3) | 1 (0.3) | 0.21 |
| Severity of COVID-19 disease, n° (%) | | | |
| - Mild or Moderate | 67 (43.2) | 100 (31) | 0.008 |
| - Severe/Critical | 88 (56.8) | 223 (69) | |
| SOFA score (median, IQR) | 1 (4) | 3 (2) | <0.001 |
| Supplemental oxygen therapy, n° (%) | | | <0.001 |
| - None | 20 (12.9) | 24 (7.4) | |
| - Nasal cannula or simple face mask | 95 (61.3) | 125 (38.7) | |
| - HFNC | 17 (11) | 32 (9.9) | |
| - CPAP/NIV | 19 (12.3) | 133 (41.2) | |
| - Mechanical ventilation | 3 (1.9) | 6 (1.9) | |
| Baseline laboratory parameter (mean, SD) | | | |
| - WBC (x1000/ μ l) | 10.08 (9.4) | 9.8 (4.2) | 0.74 |
| - Lymphocytes count (x1000/ μ l) | 1.6 (6.9) | 1.0 (0.6) | 0.23 |
| - INR | 1.2 (0.5) | 1.2 (0.8) | 0.33 |
| - Creatinine (mg/dl) | 1.6 (1.8) | 1.2 (1.2) | 0.32 |
| - ALT (UI/ml) | 56.8 (81.3) | 52.4 (85.4) | 0.60 |
| - Total bilirubin (mg/dl) | 0.8 (1.2) | 0.9 (2.2) | 0.16 |
| - PCR (x ULN) | 15.6 (49) | 23.3 (105) | 0.38 |
| Corticosteroid treatment, n° (%) | 142 (91.6) | 303 (93.8) | 0.51 |