### Table S1. Diagnoses of COVID-19 negative patients

| Patient ID | Age | Sex   | Primary Diagnosis          | Secondary Diagnosis                                         |
|------------|-----|-------|-----------------------------|-------------------------------------------------------------|
| 2          | 53  | Male  | Syncope                     | Metabolic acidosis from missing dialysis                    |
| 3          | 34  | Female| Vaginal bleeding            | Retained products of conception                             |
| 7          | 32  | Male  | Hypoxia                     | Community acquired pneumonia                                |
| 9          | 80  | Female| Poor oral Intake            | Non-ST elevation myocardial infarction                      |
| 12         | 65  | Female| Pneumonia                   |                                                             |
| 13         | 76  | Female| Altered mental status       | MSSA bacteremia                                              |
| 16         | 71  | Male  | Dizziness                   | Hypovolemia                                                 |
| 18         | 41  | Male  | Weakness                    | Diabetic ketoacidosis                                        |
| 22         | 53  | Male  | GI bleed                    |                                                             |
| 23         | 64  | Female| Shortness of breath         | CHF exacerbation                                             |
| 26         | 68  | Female| Hypoxia                     | Pulmonary embolism                                           |
| 27         | 23  | Male  | Drainage from axillary wound| Anemia                                                      |
| 31         | 52  | Female| Placement of TDC for initiation of dialysis | |
| 32         | 52  | Female| Rectal bleeding             | Sickle cell pain crisis                                     |
| 34         | 88  | Male  | Shortness of breath         | CHF exacerbation                                             |
| 37         | 57  | Male  | Chest pain                  | Acute coronary syndrome                                      |
| 39         | 22  | Female| Nausea/vomiting             | Diabetic ketoacidosis                                        |
| 41         | 64  | Male  | Diarrhea                    |                                                             |
| 49         | 85  | Female| Pleuritic chest pain        | CHF exacerbation                                             |
| 52         | 49  | Male  | Shortness of breath         | CHF exacerbation                                             |
| 56         | 55  | Female| Chest pain                  |                                                             |
| 57         | 30  | Female| Abdominal pain              | Acute pancreatitis                                           |
| 60         | 68  | Male  | Dizziness                   | Hyperglycemia                                               |
| 61         | 67  | Male  | Pleural effusion            |                                                             |
| 62         | 66  | Male  | Chest pain                  | Non-ST elevation myocardial infarction                      |
| 64         | 62  | Male  | Chest pain                  | CHF exacerbation                                             |
| 70         | 32  | Male  | Cough                       | Acute kidney injury                                          |
| 71         | 40  | Male  | Chest pain                  | Non-ST elevation myocardial infarction                      |
| 72         | 83  | Female| Fall                        |                                                             |
| 73         | 66  | Male  | Sternal wound infection     |                                                             |
| 74         | 55  | Male  | Fall                        | L1 fracture                                                 |
| 75         | 53  | Male  | Fatigue                     | Hypercalcemia from PTLD                                      |
| 76         | 22  | Male  | Shortness of breath         | Asthma exacerbation                                          |
| 80         | 62  | Male  | Fatigue                     | Acute kidney injury                                          |
| 81         | 26  | Female| Fatigue                     | Diabetic ketoacidosis                                        |
| No. | Age | Gender | Primary Complaint | Diagnosis |
|-----|-----|--------|------------------|-----------|
| 82  | 56  | Female | Shortness of breath | COPD exacerbation |
| 84  | 44  | Female | Urosepsis          |           |
| 85  | 71  | Female | Abdominal pain     |           |
| 87  | 51  | Female | Fatigue            |           |
| 90  | 51  | Male   | Cough              | Pulmonary embolism |
| 95  | 58  | Male   | Facial swelling    |           |
| 96  | 72  | Male   | Weakness           | Transient hypotension |
| 97  | 35  | Male   | Lower extremity cellulitis | |
| 98  | 30  | Male   | Sickle cell pain crisis | |
| 99  | 65  | Male   | Cough              |           |
| 100 | 77  | Female | Syncope            | Orthostatic hypotension |
| 103 | 59  | Male   | Lower extremity pain | Deep vein thrombosis |
| 104 | 75  | Female | Failure to thrive  | Urinary tract infection |
| 105 | 64  | Female | Palpitations       | Non-ST elevation myocardial infarction |
| 106 | 39  | Male   | Abdominal pain     | HLH       |
| 107 | 71  | Male   | Weakness           |           |
| 108 | 76  | Male   | Shortness of breath | CHF exacerbation |
| 110 | 61  | Female | Chronic hypoxia    | Obstructive sleep apnea |
| 111 | 43  | Female | Fatigue            | Anemia    |
| 113 | 54  | Male   | Cough              |           |
| 114 | 47  | Male   | Cancer related pain|           |
| 115 | 67  | Male   | Back pain          | Metastatic prostate cancer |
| 116 | 76  | Male   | Shortness of breath | CHF exacerbation |
| 118 | 56  | Male   | Transaminitis      |           |

**Abbreviations:** MSSA – methicillin-sensitive *Staphylococcus aureus*; TDC – tunneled dialysis catheter; CHF – congestive heart failure; PTLD – post-transplant lymphoproliferative disorder; COPD – chronic obstructive pulmonary disease; HLH – hemophagocytic lymphohistiocytosis
Table S2. Demographic and clinical characteristics of COVID-19 patients stratified by saliva SARS-CoV-2 viral load.

| Saliva SARS-CoV-2 Ct (median [IQR]) | Negative (n=15) | Low viral load (n=14) | High viral load (n=14) | p \(^2\) |
|------------------------------------|-----------------|-----------------------|-----------------------|--------|
| Age (mean (SD))                    | 56.5 (17.6)     | 56.4 (15.6)           | 49.7 (15.9)           | 0.46   |
| Male (%)                           | 6 (40.0)        | 6 (42.9)              | 6 (42.9)              | 0.98   |
| Race (%)                           |                 |                       |                       | 0.63   |
| Black                              | 7 (46.7)        | 3 (21.4)              | 6 (42.9)              |        |
| White                              | 3 (20.0)        | 3 (21.4)              | 3 (21.4)              |        |
| Other/unreported                   | 5 (33.3)        | 8 (57.1)              | 5 (35.7)              |        |
| Ethnicity (%)                      |                 |                       |                       | 0.07   |
| Hispanic/Latinx                    | 3 (20.0)        | 9 (64.3)              | 7 (50.0)              |        |
| Not Hispanic/Latinx               | 10 (66.7)       | 2 (14.3)              | 5 (35.7)              |        |
| Not specified                      | 2 (13.3)        | 3 (21.4)              | 2 (14.3)              |        |
| BMI (median [IQR])                 | 30.2 [25.0, 34.3] | 27.3 [21.2, 37.0]    | 31.0 [27.2, 35.9]    | 0.37   |
| HTN (%)                            | 7 (46.7)        | 8 (57.1)              | 7 (50.0)              | 0.85   |
| DM (%)                             | 5 (33.3)        | 5 (35.7)              | 6 (42.9)              | 0.86   |
| Underlying kidney disease (%)      | 1 (6.7)         | 4 (28.6)              | 1 (7.1)               | 0.16   |
| Any pulmonary disease (%)          | 4 (26.7)        | 3 (21.4)              | 2 (14.3)              | 0.71   |
| Charlson Comorbidity Index (median [IQR]) | 2.0 [0.5, 4.0] | 2.0 [1.0, 4.0]       | 2.0 [0.0, 3.0]       | 0.59   |
| Oxygen rank severity (%)           |                 |                       |                       | 0.32   |
| No supplemental oxygen             | 12 (80.0)       | 9 (64.3)              | 7 (50.0)              |        |
| Nasal cannula                      | 3 (20.0)        | 3 (21.4)              | 6 (42.9)              |        |
| Non-invasive ventilation           | 0 (0.0)         | 2 (14.3)              | 1 (7.1)               |        |
| IL-6 (median [IQR])                | 10.4 [6.3, 25.9] | 25.2 [20.4, 38.6]    | 17.9 [11.7, 24.2]    | 0.25   |
| ESR (median [IQR])                 | 56.5 [48.5, 109] | 60.0 [50.0, 87.5]    | 67.0 [57.0, 83.0]    | 0.94   |
| CRP (median [IQR])                 | 63.8 [14.4, 129] | 35.0 [17.2, 113]     | 104 [64.8, 176]      | 0.17   |
| Ferritin (median [IQR])            | 560 [213, 911]  | 343 [262, 647]        | 567 [378, 1945]      | 0.45   |
| D-dimer (median [IQR])             | 0.99 [0.72, 6.93] | 0.92 [0.76, 1.31]    | 0.78 [0.53, 2.07]    | 0.61   |
| WBC (median [IQR])                 | 7.30 [5.75, 8.78] | 6.91 [5.50, 9.11]    | 6.65 [4.61, 11.5]    | 0.93   |
| NLR (median [IQR])                 | 3.68 [3.19, 5.01] | 3.67 [2.85, 6.16]    | 4.75 [2.19, 15.8]    | 0.78   |
| Symptom duration >3 d (%)           | 5 (33.3)        | 5 (35.7)              | 4 (28.6)              | 1.00   |
| Antibiotics ≤48 hrs prior to saliva collection (%) | 7 (46.7) | 6 (42.9) | 8 (57.1) | 0.74 |
| Composite outcome (%)               |                 |                       |                       | 0.54   |
| Deceased                           | 1 (6.7)         | 1 (7.1)               | 1 (7.1)               |        |
| Decompensated (no death)           | 0 (0.0)         | 0 (0.0)               | 2 (14.3)              |        |
| Discharged (no death)              | 14 (93.3)       | 13 (92.9)             | 11 (78.6)             |        |

\(^1\) As determined via testing of saliva using qRT-PCR. Cycle threshold (Ct) values below 40 were considered positive, and median Ct value was used to stratify low (Ct>30) versus high (Ct<30) viral load

\(^2\) Categorical variables were compared using the Chi-squared test, unless indicated as below. Continuous variables were assessed for normal or normal-like distribution and compared using t-tests, unless indicated as below.
Kruskal-Wallis test was used due to non-normal distribution

Fisher’s exact test was used due to at least one expected value ≤ 5

Lab values as measured upon admission; not available for all patients (IL-6 n=30/43; ESR n=38/43; CRP n=41/43; Ferritin n=41/43; D-dimer n=37/43; WBC n=43/43; NLR n=39/43)

Reported duration of symptoms prior to hospitalization

Inpatient antibiotic use, determined through chart review

**Abbreviations:** BMI – body mass index; HTN – hypertension; DM – diabetes mellitus; CAD – coronary artery disease; ESR – erythrocyte sedimentation rate; CRP – C-reactive protein; WBC – white blood cell count; NLR – neutrophil-lymphocyte ratio