**Supplemental Table 1.** Patient characteristics, laboratory data, and clinical course

| **Characteristic** | **Patient A** | **Patient B** | **Patient C** | **Patient D** |
| --- | --- | --- | --- | --- |
| Age | 21 | 29 | 18 | 25 |
| Sex | Female | Male | Female | Male |
| Race | Caucasian | Caucasian | Caucasian | Caucasian |
| Underlying illnesses | Depression and anxiety | Asthma | Recent pulmonary contusion | Inhalation exposures from construction work |
| Vaping history | Nicotine-based flavored device and dabbing, 2 years, off the street | THC[[1]](#footnote-1)-based flavored devices and dabbing, 1 year | Nicotine- and THC-based flavored devices, 2 years, off the street | Extensive vaping (further details were unavailable) |
| Symptoms | Respiratory, constitutional, chest pain, gastrointestinal | Respiratory, constitutional, chest pain, gastrointestinal, myalgia, congestion, anorexia | Respiratory, constitutional, chest pain, gastrointestinal, myalgia | Respiratory, constitutional, congestion, myalgia |
| Initial vital sign[[2]](#footnote-2) | 37.1, 133, 125/78, 60, 89% on room air | 38.8, 130, 141/70, 38, 94% on room air | 38.9, 124, 131/77, 26, 92% on room air | 39.1, 118, 118/65, 26, 84% on room air |
| WBC[[3]](#footnote-3) and differential[[4]](#footnote-4) | 25,500 (95%, 2.1%, 1.8%, 0%) | 18,600 (93.9%, 2.8%, 1.9%, 0%) | 19,300 (95%, 1.3%, 2.1%, 0%) | 14,900 (92%, 5.2%, 2.1%, 0%) |
| Lactate (< 2.2 mmol/L) | Normal | 2.9 | Normal | Normal |
| ESR[[5]](#footnote-5) | 81 | 84 | Not available | Not available |
| CRP[[6]](#footnote-6) | 241.5 | 317.8 | Not available | Not available |
| HIV[[7]](#footnote-7) status | Negative | Negative | Negative | Negative |
| Respiratory viral data | (+) Rhino/enterovirus | (-) | (-) | (-) |
| BAL[[8]](#footnote-8) Findings | Neutrophil predominant (77%), no eosinophils, (+) foamy macrophages, (-) infection, (-) malignancy | Neutrophil predominant (82%), 1% eosinophils, (+) lipid laden macrophages, (-) infection, (-) malignancy | Neutrophil predominant (80%), no eosinophils, (+) lipid laden macrophages, (-) infection, (-) malignancy | Macrophage predominant (49%), no eosinophils, (+) foamy macrophages, (-) infection, (-) malignancy |
| Time from admission to intubation (hours) | 22 | 28 | 48 | 62 |
| Lowest PaO2/FiO2 | 64 | 56  | 42 | 49 |
| Highest FiO2 (%) | 100 | 100 | 100 | 100 |
| Highest PEEP[[9]](#footnote-9) (cm H2O) | 12 | 14 | 14 | 14 |
| Highest plateau pressure (cm H2O) | 23 | 33 | 24 | 29 |
| Peak inspiratory pressure (cm H2O) | 35 | 47 | 29 | 49 |
| Days on ventilator | 4 | 9 | 7 | 18 |
| Other treatments | Antibiotics, steroids | Antibiotics, steroids, N-acetyl-cysteine, paralytic, prone ventilation | Antibiotics, steroids, paralytic | Antibiotics, paralytic, VV-ECMO[[10]](#footnote-10) |
| Corticosteroid dose and duration | Methylprednisolone 60mg IV daily, tapered over 15 days | Methylprednisolone 60mg IV daily, tapered over 20 days | Methylprednisolone 125mg IV every 6 hours, tapered over 13 days | None |
| Length of ICU[[11]](#footnote-11) stay (days) | 5 | 12 | 8 | 24 |
| Hospital length of stay (days) | 8 | 18 | 12 | 31 |

1. Tetrahydrocannabinol [↑](#footnote-ref-1)
2. Vital signs are presented in the order of temperature (°C), heart rate (beats/min), blood pressure (systolic/diastolic in mm Hg), oxygen saturation (% on amount of oxygen needed) [↑](#footnote-ref-2)
3. White blood cell count (4,000-11,000/UL) [↑](#footnote-ref-3)
4. Differential is presented in percentages in the order of neutrophils, lymphocytes, monocytes, eosinophils [↑](#footnote-ref-4)
5. Erythrocyte sedimentation rate (< 20mm/hr) [↑](#footnote-ref-5)
6. C-reactive protein (< 5mg/L) [↑](#footnote-ref-6)
7. Human immunodeficiency virus [↑](#footnote-ref-7)
8. Bronchoalveolar lavage [↑](#footnote-ref-8)
9. Positive end-expiratory pressure [↑](#footnote-ref-9)
10. Veno-venous extracorporeal membrane oxygenation [↑](#footnote-ref-10)
11. Intensive Care Unit [↑](#footnote-ref-11)