Supplemental material: Twelve Case Histories of HIV-CoV co-infected persons in 2020.

**Case 1** was a 27-year old, self-identified gay man with COVID-19 confirmed on February 24. He had mild flu-like symptoms and not admitted. He was diagnosed with HIV infection in 2017 and initiated TDF+EFV+3TC in that same year. He had no comorbidities and no further support was needed post-quarantine and he was able then to resume normal activities. His last CD4+ cell count was 500/µL and his VL was undetectable in 2019.

**Case 2** is a 34-year old gay man, with HIV infection confirmed in 2012 with his ART regimen of ZDV+NVP+3TC started soon after diagnosis. In November 2019, his CD4+ cell count was 580/µL. He ran a low-grade fever on January 20 of about 38-38.5℃ and had no prior comorbidities. During co-infection, he had digestive tract symptoms and diarrhea but was not hospitalized and was able to resume normal activities. He had already come out of his quarantine when took our survey and he left his mobile phone number to stay in touch with us. In the open-ended question, he mentioned his major concern was having no money for bread.

**Case 3** was a 57-year old gay man with HIV infection confirmed in 2017. He started an ART regimen of ZDV+EFV+3TC shortly after diagnosis. IN September 2019, his CD4+ cell count was 285/µL and VL was undetectable. He is co-infected with tuberculosis, had abdominal discomfort and decreased appetite during co-infection with COVID-19, had no fever but was hospitalized, requiring supplemental oxygen. He was clinically improved 10 days later since hospitalization. With no other comorbidities, he was discharged on March 21 and felt depressed when he took our survey.

**Case 4** was a 51-year old gay man with HIV infection confirmed in 2015, starting TDF+EFV+3TC shortly after diagnosis. In January 2020, his CD4+ cell count was 1300/µL and his VL was undetectable. Although hospitalized for COVID-19, he was clinically improved 3 days later, required no supplemental oxygen, and was discharged on February 28. He had no other comorbidities and was out of isolation when he took the survey. His major concern was not losing his job and getting back to his work in a timely fashion.

**Case 5** was a 51-year old gay man whose HIV infection was confirmed in 2008. He was on a regiment of ZDV+NVP+3TC for several years. On February 22, he had confirmed SARS-COV-2 infection, likely infected by Case 10. On February 24, he began to run a very low-grade fever of about 38 ℃. His last CD4+ cell count was 800/µL on January 8 with an undetectable VL. He was clinically improved 3 days after admission and was fully recovered and discharged on February 29. No comorbidities were noted and no supplemental oxygen was needed. He reported being depressed and his major concern was his unstable income.

**Case 6** was a 57-year old woman, diagnosed with HIV infection in April 2014 and initiating TDF+EFV+3TC shortly after diagnosis. While her last CD4 test and VL were done in November 2019, she could not remember the values, but said that the “Doctor said I was okay.” On January 28, her temperature was between 37.5-38℃ along with digestive tract symptoms, like nausea, vomiting, and diarrhea. She used unspecified antibiotics on herself, had chronic nephritis, and was hospitalized in early March. She improved clinically after 15 days in the hospital and was discharged on March 23. She was still under quarantine when we conducted the survey. She worried about her job and psychological health, expressing a need for psychological support.

**Case 7** was a 66-year old female whose HIV infection was confirmed in June 2014, initiating TDF+EFV+3TC immediately. She could not recall details of CD4+ cell count and VL, stating that the “Doctor said I was okay”. She noted a temperature of about 37.5-38℃ on February 1, along with abdominal discomfort. She was treated with glucocorticoid therapy and improved clinically 7 days later after admission, being discharged on February 22. She was still under quarantine when we conducted the survey. She worried most about her family’s health.

**Case 8** was a 30-year old gay man whose HIV infection was confirmed in September 2014 and initiated ART of TDF+EFV+3TC in November 2015, 14 months later. The recent CD4+ cell count (1030/µL) and VL (undetectable) tests were conducted in January 2020. He noted a fever about 38-38.5℃ on February 26. He used antibiotics on himself and then was hospitalized without supplemental oxygen and improved clinically 4 days later. He was discharged on March 11 and completed his recommended isolation 14 days later. He worried about his job and his mental health. The help he wanted most was ready access to ART since he worked in Shenzhen city and was unable to return to work and pick-up drugs in a timely fashion. Unlike the 3-month ART supply that PLWH in Wuhan could receive during COVID-19 outbreak, the Shenzhen No. 3 Hospital where he received treatment offered only one month’s pharmaceutical supply. He left his mobile phone for us in case of further inquiry.

**Case 9** was a 56-year old gay man with HIV infection confirmed in 2009. He initiated ZDV+EFV+3TC shortly after diagnosis and is the partner of case 7. He died of COVID-19 on February 6 at home and his questionnaire was filled by his partner. While he never got a confirmatory SARS-COV-2 nuclear acid testing, his rapid downhill course with severe respiratory illness was deemed presumptive CoV. He was fine before outbreak of the COVID-19, with an undetectable VL and CD4+ cell count above 500/µL. His story was reported on a gay-friendly website (<https://mp.weixin.qq.com/s/RxKGzFoCpsSVHIbogugFrQ>). His clinical course consisted of fever above 38℃ on January 22 and medical advice to be hospitalized on January 23. He was never admitted, however, due to the overflow of COVID-19 patients and a shortage of testing in the early outbreak. He was febrile for 8 days, with 4 days confirmed >38℃. He had no other comorbidities except gastric ulcers; he vomited a lot the night that he died. It is not known whether he had a bleeding ulcer and/or died of COVID-19.

**Case 10** was a 34-year old gay man, diagnosed with confirmed HIV infection in October 2012. He initiated ART just one month after diagnosis with a regimen of ZDV+NVP+3TC. His most recent CD4+ cell count (500/µL) and VL (undetectable) were obtained in November 2019. He no fever or comorbidities, was not hospitalized, and resumed normal activities after he was ended quarantine, then taking our survey. He had worries about his family’s health but did not need further help.

**Case 11** was a 37-year old self-identified gay man who tested HIV positive in 2012 but refused ART. He was diagnosed with COVID-19 on January 20. His CD4+ cell count was 40/µL and he could not recall his VL. He was supported by one of us (HH) and reported by CAIXIN.COM using a pseudonym (http://www.caixin.com/2020-03-11/101526922.html?cxw=IOS&Sfrom=Wechat&originReferrer=iOSshare). On January 20, his temperature was 39.5℃ and he presented with radiologic “white lung” but he was unable to be admitted to the hospital due to the surge of COVID-19 patients given an initially negative nucleic acid test. However, his symptoms persisted, and he was admitted on February 21 to Huoshenshan Hospital, discharged on March 8 per updated national clinical guidance, and then readmitted to another general hospital due to his need for persistent oxygen support. However, he could not afford the hospital fees that were asked to be paid up front. With media attention and help from the NGO, he was admitted into Wuhan Jinyintan Hospital, requiring oxygen support on March 10 and finally started on a regimen of TDF+LPV/r+3TC. He presented at that time with very severe pneumonia and diarrhea. He sought to hide the fact that he was co-infected, afraid of discrimination based on his HIV status. He took our survey while still in the hospital on April 1, 2020.

**Case 12** is a 25-year old gay man, among the youngest of the participants. He was diagnosed with HIV upon admission for COVID-19 with a CD4+ cell count of 15/µL. He did not recall his VL. He needed supplemental oxygen when admitted. He was the roommate of Case 2 in a ward of Jinyintan Hospital when he took the survey.