Original Article

Clinical findings in a group of COVID-19 patients: a single-center retrospective study

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Background: The coronavirus disease 2019 (COVID-19) is spreading rapidly across countries and has infected tens of millions of people all over the world. So far, the pandemic is ongoing globally, and the situation is still worsening.

Methods: In this retrospective, single-center cohort analysis, we included 25 adult inpatients with laboratory confirmed COVID-19 disease from the affiliated hospital of Xuzhou Medical University (Xuzhou, China). Epidemiological characterizations, clinical findings, and medical treatments were all reported. In addition, laboratory markers were investigated in terms of course of treatment.

Results: Epidemiological features and clinical findings were present for all 25 patients. Laboratory markers were identified due to temporal changes. After medical treatment, all patients were discharged home and recovering from the infection.

Conclusions: This study provides a comprehensive overview of patients with COVID-19 disease in a single hospital. Some of the laboratory markers were statistically different during the course of the disease, which might serve as indicators in identifying patients with COVID-19 disease at an early stage of the infection.

Keywords: Coronavirus disease 2019 (COVID-19); SARS-CoV-2; infection; symptom; transmission; medical treatment

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Introduction

Since the first officially reported case of the coronavirus disease 2019 (COVID-19) in late December, 2019 in Wuhan, China, the outbreak has evolved into a global public health crisis with an extensive number of infected patients, causing devastating death toll all over the world (1). So far, the COVID-19 pandemic is still ongoing and the causing virus SARS-CoV-2 is under extensive investigation in terms of its transmission routes (2-4), infection mechanisms (5), genomic evolution (6), and environmental viability (7). According to the real-time data released by the Coronavirus Resource Center at the Johns Hopkins University and Medicine (https://coronavirus.jhu.edu/map.html), it seems that the outbreak in China has been contained, with rarely new local infections, which, though still disputable, may indicate that the lockdown and mask-wearing policies have positive effects on slowing down and blocking the spread of the virus. In addition, the New Coronavirus Pneumonia Diagnosis and Treatment Plan by the China National Health Commission (CNHC) also plays vital roles in the control and prevention of COVID-19 in China, which is revised regularly based on clinical experience and findings. Procedures for COVID-19 detection and medical therapy are also described in detail. Thus, Chinese experience in battling with COVID-19 disease could be generalizable to patients in other countries. Although there have been tens of millions of confirmed cases, investigations of the disease are still not adequate and more clinical reports are urgently needed to share with medical staffs all over the world.

Xuzhou is a prefecture-level city with around 10 million residents and is around 550 km away from Wuhan. During the outbreak, there were 54 fever clinics for screening COVID-19 patients through the established steps (8) and 13 designated hospitals for medical therapies of SARS-CoV-2 infections in Xuzhou (9). According to Xuzhou Center for Disease Control and Prevention, a total of 79 cases were confirmed in Xuzhou. After hospitalization, all of the infected patients have been discharged home and are recovering from the disease. However, asymptomatic infection and imported cases have been emphasized by the central and local governments as the potential risks for the second wave of outbreak. In this study, we performed a complete single-center retrospective analysis of a group of 25 patients with COVID-19 disease in terms of epidemiological data, laboratory tests, clinical outcomes, radiological features, and medical treatments. This descriptive study gives an overall clinical understanding of the COVID-19 patients in a prefecture-level city and provides a valuable experience in the prevention and treatment of COVID-19 disease in China. We present the following article in accordance with the STROBE reporting checklist (available at http://dx.doi.org/10.21037/atm-20-3333).

Methods

Patients

During the COVID-19 outbreak, a total of 79 patients were confirmed in all 10 administrative divisions in Xuzhou, China. Case definitions of confirmed human infection with SARS-CoV-2 are in accordance with the COVID-19 Diagnosis and Treatment Plan of the CNHC (9). Only patients with a laboratory confirmed infection were enrolled in this study. Twenty-five patients were admitted to the affiliated hospital of Xuzhou Medical University from January 26, 2020 to February 13, 2020. These patients were retrospectively and consecutively analysed in this study. Epidemiological characteristics of 25 patients with COVID-19 before admission into the Affiliated Hospital of Xuzhou Medical University, Xuzhou, Jiangsu Province, China were recorded and are available in online table (Table S1). Standardised case report form was used to collect clinical data such as laboratory tests, clinical outcomes, chest CT, and medical treatments. If information was not clear, medical staff in the hospital contacted patients for clarification. The present study was performed in accordance with the Helsinki Declaration (as revised in 2013) and was approved by the Ethics Committee of the Affiliated Hospital of Xuzhou Medical University (No. XYFY2020-KL016-01). Written informed consent was obtained from participants or their families, retrospectively.

Detection of coronavirus

All cases were tested for SARS-CoV-2 via fluorescent real-time reverse transcription PCR (RT-PCR) on throat swab samples. Confirmed cases were those with positive results. One hundred and fifty μL of sample from throat swab of each patient was used to extract total RNA. Nucleocapsid (N) gene and open reading frame lab (ORF1ab) gene were amplified for detection of the virus.

Laboratory tests and chest CT

Laboratory diagnoses including routine blood test (RBT), comprehensive metabolic panel (CMP), infection test, and

coagulation factors were performed for the clustered cases at the Department of Laboratory Medicine, the Affiliated Hospital of Xuzhou Medical University. Details of test dates and values are recorded in online table (Table S2). Chest CT scanning were performed for all patients except for case No. XYFY-002 due to pregnancy.

Medical treatments

Medical treatment during hospitalization include: antiviral medicines lopinavir/ritonavir (400 mg/100 mg bid po), Umifenovir (200 mg tid po), and interferon alfa-2b (5 MIU, aerosolized inhalation); antibacterial drugs moxifloxacin hydrochloride (400 mg, ivgtt, qd), biapenem (300 mg, ivgtt, q8h), and/or linezolid (600 mg, ivgtt, q12h). Immunoglobulin (20 g/day) was given to index patient only. Drugs prescribed for glucocorticoid therapy include methylprednisolone (20–60 mg bid ivgtt), ketotifen fumarate (1 mg, qd, qn) and/or budesonide inhalation (1 mg, qd). Traditional Chinese medicine (TCM) Lianhuaqingwen (LH) capsule was also used when necessary. Treatment schemes for all patients were detailed in online table (Table S3) and illustrated in Figure S1 except for case No. XYFY-002 due to pregnancy.

Discharge standards

Patients were discharged home by following the COVID-19 Diagnosis and Treatment Plan by China National Health Commission (9). This is, patients were discharged when their body temperatures returned to normal for more than 3 consecutive days with improved respiratory symptoms, and pulmonary imaging shows significant resolution of inflammation. Meanwhile, nucleic acid detection for the pathogen SARS-CoV-2 need to be negative for two consecutive tests with at least 1 day apart.

Data visualization and statistical analysis

Data visualization and statistical analyses were performed with R package. All the continuous measurement is present as an average with standard deviations when comparing the indices inn different groups while swarm plot and time series curves were used for data visualization. Classification variable is presented in percentage. Laboratory parameters outside the normal range were marked out in plots. Two-tailed unequal variance Student's *t*-test was used for statistical analysis (P value <0.05).

Patient and public involvement

This is a retrospective study and no patients were involved in the study design, setting the research questions, or the outcome measures directly. No patients were asked to advise on interpretation or writing up of results.

Results

Epidemiological characteristics

In this study, we performed a single-center retrospective analysis of 25 COVID-19 patients admitted to the affiliated hospital of Xuzhou Medical University. Professions of these patients are diverse, including farmers, teachers, workers, and hospital cleaners, etc. Fifteen patients are male while 10 patients are female. Age distribution ranges from 21 to 80 years old with the average age at 45 years old and the standard deviation of 17.4 years old. Three cases were imported, and 6 clustered cases were identified. From symptom onset to confirmed infection, the average time is 6.6 days. Among the 25 patients, 3 patients had very mild conditions, 2 patients were in severe conditions while other patients were in regular conditions. After hospitalization and medical treatments, all the patients were discharged home. Interestingly, two discharged patients were tested positive again during recovering period and re-admitted to the hospital until nucleic acids tested negative. No patient is dead due to COVID-19 in this study. Screening of underlying diseases shows that all the patients do not have any of the diseases such as autoimmune liver disease, non-alcoholic fatty liver disease, alcoholic fatty liver disease, chronic liver disease, liver failure, acute heart failure, shock, chronic lung diseases, renal insufficiency, immunodeficiency, and hepatitis C. However, 7 patients (28%) have hypertension, 7 (28%) having diabetes, 1 (4%) having malignant tumor (cervical cancer and breast cancer), 2 having chronic hepatitis B (8%), 2 (8%) smoking, 1 (4%) drinking, 1 (4%) having coronary heart disease, and 1 (4%) having cerebrovascular disease. For details, please refer to online table (Table S1).

Basic description of symptoms

Before hospitalization, symptoms of the 25 patients include fever (76%), dry cough (56%), expectoration (48%), shortness of breath (36%), sore throat (28%), fatigue (28%), breath difficulty (12%), vomit (8%), diarrhea (8%), and headache (4%). For the 19 patients with fever, peak

temperature ranges from 37.2 to 39.5 ℃, with the average at 38.4 ℃. When admitted to hospital, body temperature ranges from 36.6 to 39.3 ℃, with the average at 36 ℃. Respiratory frequency ranges from 15 to 32 times/minute. Blood pressure of most patients are at normal range below 120/80 mmHg and above 90/60 mmHg while several patients have stage I and stage II hypertensions. Heart rate (times/minute) ranges from 60 to 123 and has an average of 84. In addition, blood oxygen saturation SpO_2 (%) ranges from 92% to 100% and is averaged at 97.4%. For detailed information of each patient, please refer to online table (Table S4). During hospitalization, 60% of patients showed recurrence of fever symptoms with peak body temperature ranging from 37.5 to 39.2 ℃. Sixty-four percent of patients had dry cough while 52% having sputum. Breath of shortness and breath difficulty happened in 44% and 20% of patients, respectively, while 36% of patients felt fatigue. In addition, 16% of patients had diarrhoea. Other symptoms include vomit (12%), sore throat (8%), sore muscle (4%), and headache (4%). Clinical characteristics such as breath frequency, blood pressure, heart rate, and blood oxygen saturation were all monitored and recorded. For detailed information of each patient, please refer to online table (Table S5).

Comparison of clinical features

In order to get a better understanding of the clinical features of COVID-19, we analyzed all the available laboratory test data of the 25 patients comparatively in terms of course of treatment. Four main categories of laboratory test results involving 42 different indicators were studies, which include route blood test (RBT), CMP, infection tests, and coagulation tests. 6 clusters were identified among the patients while other people had no clear contact history. A timeline of events for hospital admission, hospital discharge, PCR test, chest CT scanning, and all the laboratory tests was constructed so as to provide an overview of the whole clinical diagnosis procedures (*Figure 1*).

We compared all the available laboratory test results for patients at the stages of hospital admission and discharge. According to the analysis, it was found that indicators such as white blood cells [admission (5.13±1.78) $\times10^9$/L *vs.* discharge (6.39±1.87) $\times10^9$/L], platelet count [admission (213.72±108.45) $\times10^9$/L *vs.* discharge (268.08±64.12) $\times10^9$/L], lactate dehydrogenase [admission 212.76±72.40 U/L *vs.* discharge 174.36±31.81 U/L], triglyceride (admission 1.20±0.55 mmol/L *vs.* discharge 3.03±1.93 mmol/L), sodium (admission 139.73±4.15 mmol/L *vs.* discharge 142.85±3.56 mmol/L), C-reactive protein (admission 34.78±46.98 mg/L *vs.* discharge 3.55±4.37 mg/L), international normalized ratio (INR) (admission 1.18±0.11 *vs.* discharge 1.10±0.11), and prothrombin time (PT) (admission 12.74±1.19 s *vs.* discharge 11.84±1.22 s) were significantly different during admission and discharge. In addition, no statistical differences were identified for indicators such as red blood cell [admission (4.24±1.06) $\times10^{12}$/L *vs.* discharge (4.29±0.61) $\times10^{12}$/L], haematocrit (admission 40.40%±5.98% *vs.* 39.25%±5.70%), albumin (admission 41.08±5.35 g/L *vs.* discharge 39.09±4.72 g/L), eGFR (admission 118.86±8.05 mL/min/1.73 m^2 *vs.* discharge 123.78±2.99 mL/min/1.73 m^2), erythrocyte sedimentation rate (admission 22.00±16.52 mm/h *vs.* discharge 37.33±24.23 mm/h), and ferritin (admission 384.61±253.51 μg/L *vs.* discharge 444.46±344.26 μg/L), at admission and discharge stage. However, their average values were out of normal range. As for other indicators, they were in normal range with no significant difference at both admission and discharge times. For details, please refer to *Table 1*.

Discussion

COVID-19 is a novel infectious disease caused by SARS-CoV-2 in human population. Currently, there is no vaccine or cure for the disease. The transmission modes of COVID-19 and infection mechanisms of SARS-CoV-2 are still not completely solved due to its jump from bats to human beings via unknown intermediate host(s) (10). Since the outbreak of COVID-19 disease from late December, 2019, many studies swiftly reported the epidemiological features and clinical findings of the infected patients in different regions of China (11-13), which greatly facilitate the disease diagnosis and the prevention of the virus spread. In a recent epidemiological study of 44,672 confirmed cases of the COVID-19 disease, which was conducted by Chinese Center for Disease Control and Prevention (China CDC), it was found that 80% of the cases were in mild conditions (14). In addition, the sex ratio analysis showed that male-to-female ratio was 0.99:1 in Wuhan, 1.04:1 in Hubei, and 1.06:1 in China overall (14). Thus, there seems to be roughly equal numbers of cases between men and women so far, though sex differences in mortality and vulnerability were observed, that is, men having higher mortality than women with unclear reasons (15). In this study, we summarized the epidemiological features of 25 patients in

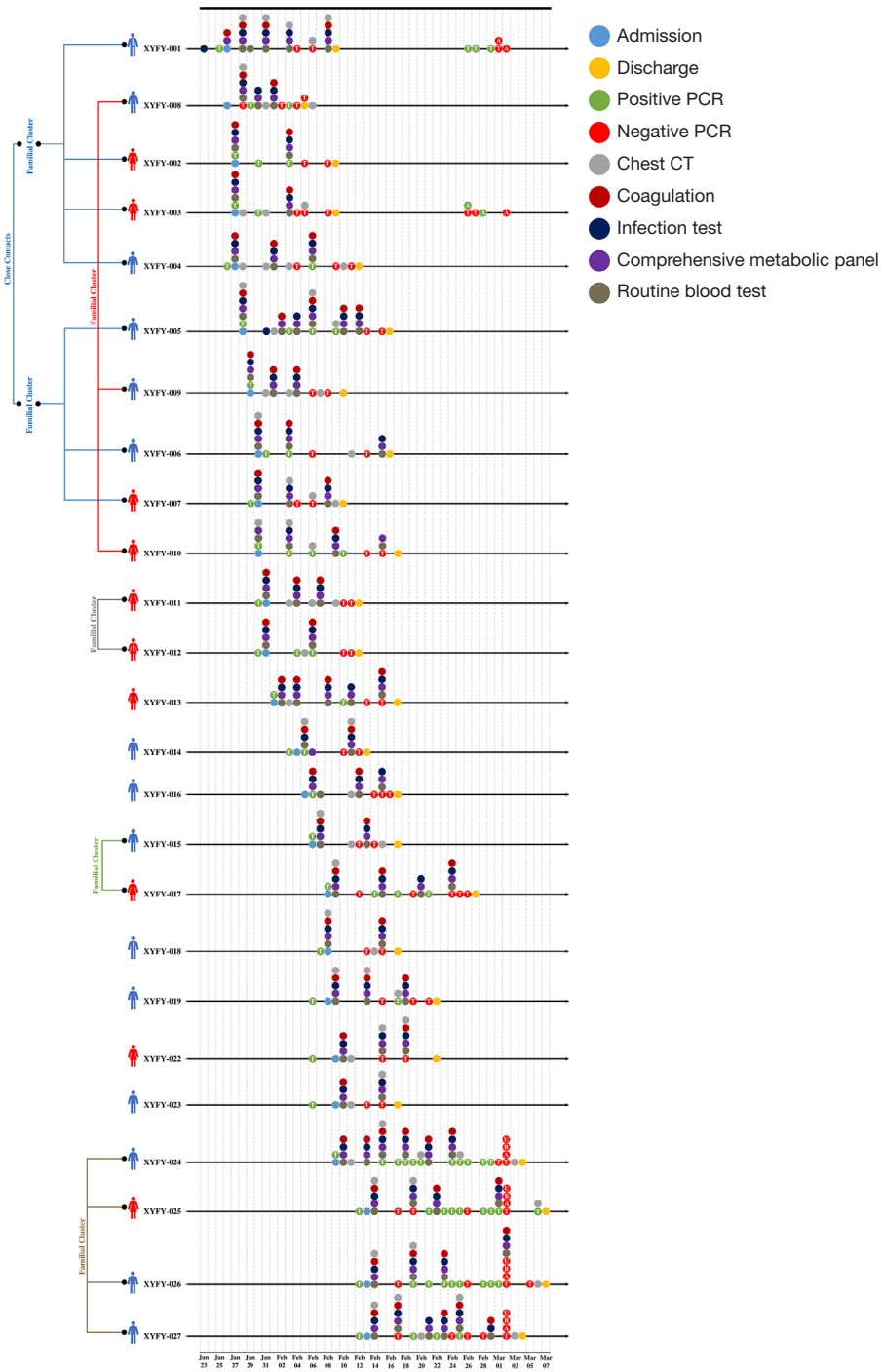

Figure 1 Timeline of clinical diagnosis of 25 COVID-19 patients in the Affiliated Hospital of Xuzhou Medical University. All the patients have been discharged home. Known transmission routes, such as familial clusters and close contacts, were illustrated on the left. The three imported cases were marked with capital letter I. Time points for admission (blue dots), discharge (yellow dots), chest CT (grey dots), PCR (green dots for positive results and red dots for negative results), and laboratory tests (RBT, CMP, infection test, coagulation) were all specified in the time line. It is noteworthy that, for PCR tests, samples from throat, blood, anus, and urine are labelled as T, B, A, and U, respectively. XYFY is an abbreviation of the Affiliated Hospital of Xuzhou Medical University in the form of Chinese Pinyin. COVID, coronavirus disease; RBT, routine blood test; CMP, comprehensive metabolic panel.

Table 1 Comparison of laboratory findings in 25 patients with coronavirus disease 2019 (COVID-19) after admission and before discharge in the Affiliated Hospital of Xuzhou Medical University, China

Categories	Clinical indicators	Normal range	Admission		Discharge		Changing trends
			N	Mean ± SD	N	Mean ± SD	
Routine blood test (RBT)	White blood cells (10^9/L)*	3.50–9.50	25	5.13±1.78	25	6.39±1.87	↑
	Neutrophil ratio (%)	51.00–75.00	25	67.59±10.52	25	65.34±10.75	↓
	Lymphocyte ratio (%)	20.00–50.00	25	23.87±8.57	25	25.70±9.57	↑
	Monocyte ratio (%)	3.00–10.00	25	7.72±3.70	25	7.34±1.83	↓
	Neutrophil count (10^9/L)	2.04–7.50	25	3.48±1.46	25	4.21±1.54	↑
	Lymphocyte count (10^9/L)	1.10–3.20	25	1.20±0.52	25	1.56±0.74	↑
	Monocyte count (10^9/L)	0.10–0.60	25	0.40±0.22	25	0.45±0.16	↑
	Red blood cell count (10^{12}/L)#	4.30–5.80	25	4.24±1.06	25	4.29±0.61	↑
	Hemoglobin (g/L)	130.00–175.00	25	137.92±19.66	25	133.72±19.02	↓
	Hematocrit (%)#	40.00–50.00	25	40.40±5.98	25	39.25±5.70	↓
	Platelet count (10^9/L)*	125.00–350.00	25	213.72±108.45	25	268.08±64.12	↑
	Red blood cell distribution width (%)	10.60–15.00	25	11.96±0.92	25	11.99±0.97	↑
	Mean platelet volume (fL)	6.00–14.00	25	9.54±1.16	25	9.06±0.88	↓
	Platelet distribution width (%)	9.00–17.00	25	15.10±1.97	25	15.29±1.82	↑
	Platelet hematocrit (%)	0.07–0.33	25	0.24±0.18	25	0.24±0.05	–
Comprehensive Metabolic Panel (CMP)	Alanine aminotransferase (U/L)	7.00–40.00	25	26.56±13.73	24	37.88±35.88	↑
	Aspartate aminotransferase (U/L)	15.00–35.00	25	27.16±10.50	24	22.67±7.39	↑
	Alkaline phosphatase (U/L)	42.00–128.00	25	71.96±27.99	24	65.17±19.81	↓
	Glutamyltransferase (U/L)	7.00–45.00	25	43.96±35.86	24	42.63±33.35	↓
	Lactate dehydrogenase (U/L)*	110.00–240.00	25	212.76±72.40	22	174.36±31.81	↓
	Total bilirubin (μmol/L)	0–20.00	25	11.29±4.91	24	10.65±6.44	↓
	Albumin (g/L)#	40.00–55.00	25	41.08±5.35	24	39.09±4.72	↓
	Glucose (mmol/L)	3.80–6.20	19	6.27±1.58	21	5.69±1.72	↓
	Urea (mmol/L)	1.70–8.30	25	3.84±1.01	23	4.32±1.36	↑
	Creatinine (μmol/L)	40.00–97.00	25	61.32±15.72	23	57.04±12.08	↓
	Uric acid (μmol/L)	90.00–420.00	25	285.00±77.49	23	255.26±78.51	↓
	Triglyceride (mmol/L)#***	0.56–1.70	19	1.20±0.55	22	3.03±1.93	↑
	Total cholesterol (mmol/L)	3.10–5.70	19	3.79±0.78	22	4.32±1.01	↑
	Calcium (mmol/L)	2.10–2.70	24	2.27±0.52	24	2.21±0.12	↓
	Phosphorus (mmol/L)	0.97–1.61	18	1.06±0.20	8	1.17±0.20	↑
	Potassium (mmol/L)	3.50–5.30	24	4.10±0.55	24	4.27±0.42	↑
	Sodium (mmol/L)**	137.00–147.00	24	139.73±4.15	24	142.85±3.56	↑
	Chlorine (mmol/L)	99.00–110.00	24	102.13±4.91	24	103.19±2.64	↑

Table 1 (*continued*)

Table 1 (*continued*)

Categories	Clinical indicators	Normal range	Admission		Discharge		Changing trends
			N	Mean ± SD	N	Mean ± SD	
	eGFR (mL/min/1.73 m^2)#	100.00–120.00	11	118.86±8.05	7	123.78±2.99	↑
Infection	Erythrocyte sedimentation rate (mm/h)#	Male 0–15.00, female 0–20.00	7	22.00±16.52	9	37.33±24.23	↑
	Ferritin (μg/L)#	Male 0–322.00, female 0–219.00	13	384.61±253.51	15	444.46±344.26	↑
	Procalcitonin (ng/mL)	0–0.10	21	0.09±0.12	15	0.06±0.02	↓
	C-reactive protein (mg/L)#**	0.80–8.00	22	34.78±46.98	22	3.55±4.37	↓
Coagulation	International normalized ratio*	0.80–1.20	24	1.18±0.11	21	1.10±0.11	↓
	Prothrombin time (s)*	10.00–14.00	24	12.74±1.19	21	11.84±1.22	↓
	Activated partial prothrombin time (s)	21.00–40.00	24	31.22±4.23	21	29.76±4.01	↓
	Thrombin time (s)	14.00–21.00	24	14.88±1.64	21	15.33±0.73	↑
	D-dimer (μg/mL)	0–0.50	23	0.17±0.17	17	0.26±0.18	↑

Values are averaged numbers (percentages) ± standard deviation unless stated otherwise. Statistical significance indicated as * (P<0.05), ** (P<0.01), and *** (P<0.001). #, indicators with average values out of normal ranges. ↑: increase. ↓: decrease. –: no change.

a single hospital, together with clinical findings in terms of laboratory tests.

According to the 7th edition of the New Coronavirus Pneumonia Diagnosis and Treatment Plan, at the early stage of the disease onset, the total number of white blood cells in the peripheral blood was normal or decreased, and the lymphocyte count was decreased. Some patients had increased levels of liver enzymes, lactate dehydrogenase, muscle enzymes, and myoglobin. Some critically ill patients saw increased troponin. In addition, most patients had elevated C-reactive protein and erythrocyte sedimentation rate and normal procalcitonin. In severe cases, D-dimer may increase, and peripheral blood lymphocytes progressively decrease. Severe and critically ill patients often have elevated inflammatory factors. It was suggested that decrease of lymphocytes could be due to the functional exhaustion (16). However, the specific reasons were still under investigation (17).

In this study, we confirmed that white blood cells, lymphocytes, monocytes, and neutrophils were in normal range during infection, which were all increased after medical treatment, suggesting enhanced immunity and the effects of medical therapy. It was also noticed that liver dysfunction was associated with SARS-CoV-2 infection with elevated level of lactate dehydrogenase and creatinine, which was more prevalent in severe cases than in mild cases (18). In this study, we observed that the significant decrease of lactate dehydrogenase for medical treatments, which indicated patients in recovering mode. As for the significantly raised triglyceride and sodium levels at discharge, it could be due to the diet change and long-term best rest without exercise during hospitalization. This might also explain the apparent increase of total cholesterol for the patients. As for the C-reactive protein, it was reported to be positively correlated with lung lesions and could reflect disease severity at the early stage of COVID-19 (19). Abnormally high level of C-reactive protein (34.78±46.98 mg/L) was observed at admission and returned to normal range at 3.55±4.37 mg/L. In terms of the coagulation test, two indicators, both INR and PT were significantly reduced, which was consistent with recent findings that the two indicators were lower in normal group than COVID-19 patients (20). In terms of ferritin, it is a major intracellular iron storage protein in all organisms, which binds free ions of the trace element, neutralizing its toxic properties and increasing its solubility. High level of ferritin has been associated with increased illness severity and adverse outcomes, including COVID-19, which might lead to cytokine storm. In this study, we observed a slightly higher ferritin level on average for patients from admission

to discharge. The possible explanations for this abnormality include (I) the ferritin data for patients from admission to discharge is not complete, which might not reflect the real trend of the indictor and (II) when patients discharging from hospital, they only need to meet the criteria of no fever, two negative PCR test, and well-adsorbed lung lesions. Thus, these patients are still in recovering stage and there might still be some indicators out of normal range. In general, the indicators identified in this study with significant alterations could be used as assessment of medical therapy during patient recovery. However, it is rather hard to draw any clear correlation with patient recovery time and lab values or treatment strategies. In fact, given the wide variation in treatments, the lab parameters would be uninterpretable without larger cohort sizes.

It is noteworthy that some of the cured patients also received the treatment of LH capsules, a TCM. According to several clinical trials in terms of its efficacy and safety toward SARS-CoV-2 infections, LH capsules could be considered to ameliorate clinical symptoms of Covid-19 and shorten the duration of viral shedding (21-23). Previously, a bioinformatic analysis constructed an influenza-related protein-protein interaction (PPI) network, which revealed that there were 15 main effective components in the medicine while 7 of them were further experimentally validated to have antivirus efficacy in vitro (24). As for SARS-CoV-2 infection, it was postulated that key components in LH capsules could block the binding of SARS-CoV-2 with the angiotensin converting enzyme and ameliorate lung injury via the suppression of oxidative stress and apoptosis, though more experimental evidences were required (21).

Conclusions

In this retrospective study, a total of 25 patients with COVID-19 from the affiliated hospital of Xuzhou Medical University were investigated. Epidemiological characterization and clinical findings were reported. In particular, temporal changes in laboratory markers during hospitalization of patients were reported, though the small sample size might not be sufficient to draw generalized conclusions and require further studies. Patients received medical treatments by following the official guide of the New Coronavirus Pneumonia Diagnosis and Treatment Plan and were all discharged home for recovering. In addition, chest CT scanning showed continuing resolution of lung lesions for these patients. In sum, this study provided a clinical overview of COVID-19 disease and identified some significantly altered laboratory markers during SARS-CoV-2 infection through comparative analysis of a small group of patients in a single hospital, which might facilitate clinicians to prevent the transmission of the virus and help diagnose COVID-19 patients at an early stage.

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The present study was performed in accordance with the Helsinki Declaration (as revised in 2013) and was approved by the Ethics Committee of the affiliated hospital of Xuzhou Medical University (No. XYFY2020-KL016-01). Written informed consent was obtained from participants or their families, retrospectively.

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Supplementary

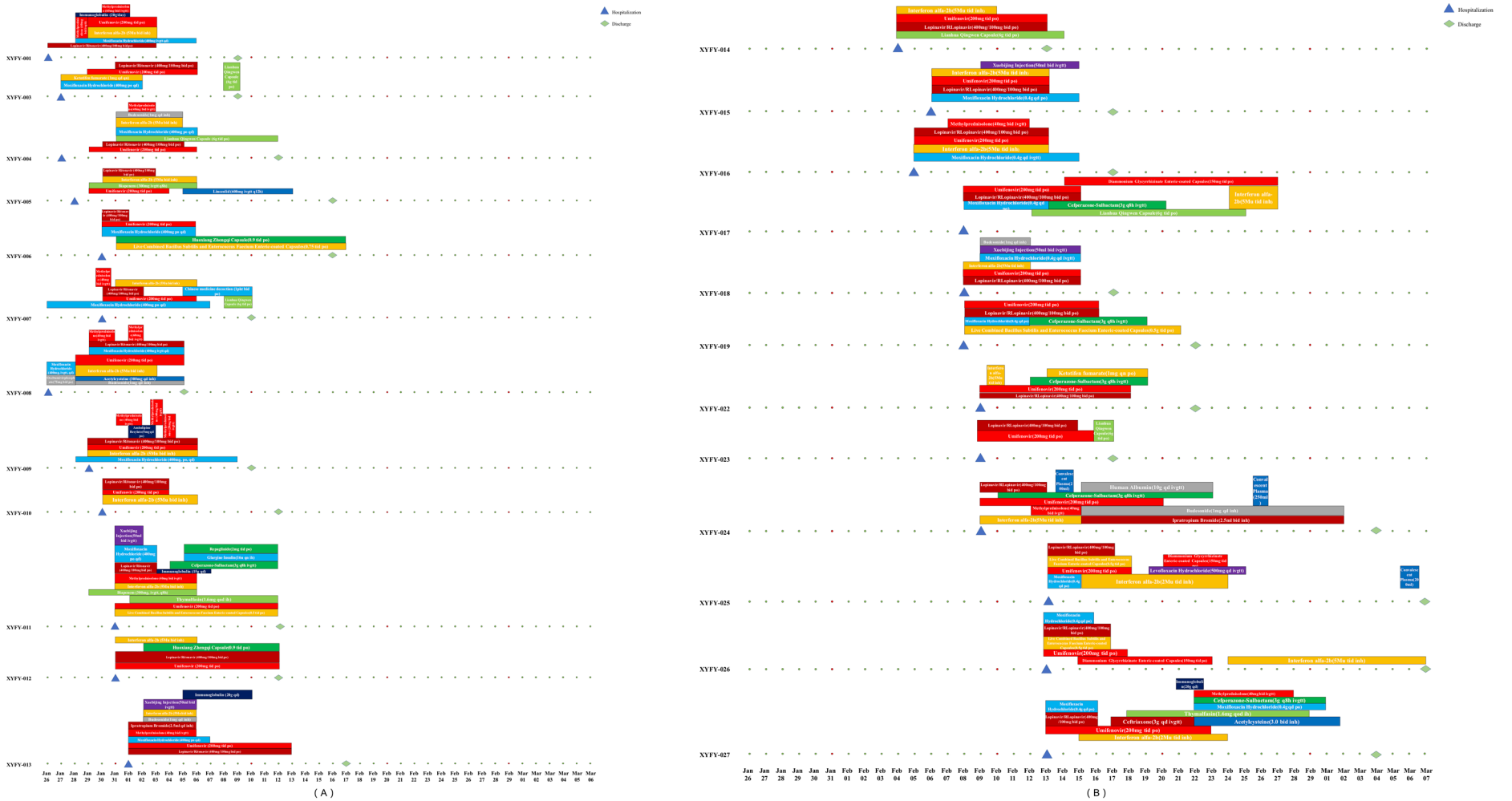

Figure S1 Medical treatments of 25 patients with coronavirus disease 2019 (COVID-19) during hospitalization in the Affiliated Hospital of Xuzhou Medical University, China. Abbreviations used in the figure were explained below. bid: twice a day. inh: inhalation. ivgtt: intravenous drip. po: by mouth. q12h: once every 12 hours. q8h: once every 8 hours. qd: every day. qn: every night. qod: every other day.

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Personal and clinical characteristics of 25 patients with COVID-19 in the Affiliated Hospital of Xuzhou Medical University. XYFY-001 and XYFY-013 were patients (marked red) with severe symptoms including acute respiratory distress syndrome (ARDS) and respiratory failure (RF). XYFY-025, XYFY-026, XYFY-027 were patients (marked blue) with very mild symptoms. Other cases (marked black) were regular. For underlying diseases, 0 means “not have” while 1 means “have”. Sex: 0 for Female; 1 for Male.

Patient ID	Sex	Age (year)	Height (cm)	Weight (Kg)	Date of Symptom Onset	Date of First Consultation	Date of Confirmation	Date of Admission	Date of Discharge	Hypertension	Diabetes	Coronary Heart Disease	Cerebrovascular Disease	Malignant Tumor	Smoking	Drinking
XYFY-001*	1	56	170	90	19/1/20	23/1/20	25/1/20	26/1/20	9/2/20	0	0	0	0	0	0	0
XYFY-002	0	32	159	66	25/1/20	26/1/20	27/1/20	27/1/20	9/2/20	0	0	0	0	0	0	0
XYFY-003	0	21	159	105	24/1/20	26/1/20	26/1/20	27/1/20	9/2/20	0	0	0	0	0	0	0
XYFY-004	1	42	175	77	25/1/20	25/1/20	27/1/20	27/1/20	12/2/20	0	0	0	0	0	0	0
XYFY-005	1	62	165	65	21/1/20	29/1/20	29/1/20	28/1/20	16/2/20	1	0	0	0	0	0	0
XYFY-006	1	34	170	56	23/1/20	28/1/20	31/1/20	30/1/20	16/2/20	0	0	0	0	0	0	0
XYFY-007	0	56	153	53	28/1/20	29/1/20	30/1/20	30/1/20	10/2/20	0	1	0	0	1	0	0
XYFY-008	1	26	179	75	17/1/20	17/1/20	1/2/20	26/1/20	5/2/20	0	0	0	0	0	0	0
XYFY-009	1	50	173	75	23/1/20	23/1/20	29/1/20	29/1/20	10/2/20	1	0	0	0	0	0	0
XYFY-010	0	26	166	60	26/1/20	28/1/20	1/2/20	30/1/20	17/2/20	0	0	0	0	0	0	0
XYFY-011	0	49	156	65	27/1/20	30/1/20	30/1/20	31/1/20	12/2/20	0	1	0	0	0	0	0
XYFY-012*	0	23	160	45	23/1/20	30/1/20	30/1/20	31/1/20	12/2/20	0	1	0	0	0	0	0
XYFY-013	0	35	162	75	28/1/20	1/2/20	3/2/20	1/2/20	17/2/20	0	1	0	0	0	0	0
XYFY-014	1	38	173	78	1/2/20	2/2/20	5/2/20	4/2/20	13/1/20	0	0	0	0	0	0	0
XYFY-015	1	50	170	81	27/1/20	5/2/20	7/2/20	6/2/20	17/2/20	0	0	0	0	0	0	0
XYFY-016	1	23	180	95	28/1/20	30/1/20	6/2/20	5/2/20	17/2/20	0	0	0	0	0	0	0
XYFY-017	0	46	160	63	25/1/20	25/1/20	8/2/20	8/2/20	27/2/20	0	0	0	0	0	0	0
XYFY-018*	1	50	170	70	3/2/20	6/2/20	8/2/20	8/2/20	17/2/20	0	1	0	0	0	1	1
XYFY-019	1	72	166	63	29/1/20	2/2/20	3/2/20	8/2/20	22/2/20	1	0	0	0	0	0	0
XYFY-022	0	65	158	66	2/2/20	6/2/20	6/2/20	9/2/20	22/2/20	1	0	0	0	0	0	0

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Laboratory Diagnosis	Routine Blood Test	White Blood Cells (10^9/L)	Neutrophil Ratio (%)	Lymphocyte Ratio (%)	Monocyte Ratio (%)	Neutrophil Count (10^9/L)	Lymphocyte Count (10^9/L)	Monocyte Count (10^9/L)	Red Blood Cell Count (10^12/L)	Hemoglobin (g/L)	Hematocrit (%)	Platelet Count (10^9/L)	Red Blood Cell Distribution Width (%)	Mean Platelet Volume (fL)	Platelet Distribution Width (fL)	Platelet Hematocrit (%)
	Normal Range	3.5-9.5	51.0-75.0	20.0-50.0	3.0-10.0	2.04-7.50	1.1-3.2	0.10-0.60	4.30-5.80	130-175	40.0-50.0	125-350	10.6-15.0	6.0-14.0	39.0-46.0	0.07-0.33
Patient 1	**2020/1/28**	3.3	76	19.4	4.5	2.39	0.6	0.15	5.04	163	48.3	168	12.3	10.8	16.2	0.18
	2020/1/29	4.9	86	10.8	3.1	4.23	0.5	0.15	4.68	154	44	178	12.1	11.1	16.6	0.2
	2020/1/31	10.3	89.5	6.4	4	9.23	0.7	0.41	4.34	140	40.9	262	12.4	11.8	13.7	0.31
	2020/2/3	5.6	77.9	13.9	8.2	4.39	0.8	0.46	4.62	148	41.7	282	12	12	14.5	0.34
	2020/2/8	7.1	77.1	13	9	5.47	0.9	0.64	4.49	146	43.4	248	12.1	10.1	16.3	0.25
Patient 2	**2020/1/27**	3.7	72.6	16.5	10.6	2.68	0.6	0.39	3.23	106	30.2	142	11.9	10.2	10.8	0.15
	2020/2/3	3.9	66.1	24.2	8.2	2.57	0.9	0.32	3.02	98	28	174	11.6	10.2	10.8	0.16
Patient 3	**2020/1/27**	11.3	72.8	21	5.6	8.27	2.4	0.63	5.41	156	45.2	287	10.7	9.8	10.7	0.28
	2020/2/3	12.6	68.4	26.1	4.8	8.59	3.3	0.6	5.06	141	42.2	346	11.7	9.3	10.1	0.32
Patient 4	**2020/1/27**	5.9	63.6	21.6	12.4	3.75	1.3	0.73	4.3	116	36.1	647	13	10	10.4	0.71
	2020/2/1	2.4	69.3	28.2	2.2	1.66	0.7	0.05	4.48	123	37	499	12.4	9.2	15.7	0.46
	2020/2/6	6.9	48.5	38.7	11.5	3.36	2.7	0.79	4.13	112	35.1	447	12.6	9.2	15.7	0.41
Patient 5	**2020/1/28**	8.2	80.5	7.9	11.3	6.57	0.7	0.92	2.26	75	21.5	240	11.4	8.6	15.7	0.21
	2020/2/2	15.9	78.6	14.1	6.6	12.47	2.2	1.05	2.61	86	25.6	365	11.9	8.1	15.5	0.3
	2020/2/4	17.7	87.9	7.4	4	15.56	1.3	0.71	3.39	113	33.2	407	11.9	7.8	15.5	0.32
	2020/2/6	14.3	83.6	10.8	4.7	11.96	1.5	0.67	3	102	29.3	378	12.3	8.1	15.7	0.31
	2020/2/10	5.9	71.1	22.1	5.2	4.19	1.3	0.31	2.68	90	25.8	313	12.7	7.9	15.5	0.25
	2020/2/12	6.6	76.3	17.3	4.4	4.56	1	0.26	2.51	84	24.7	259	12.3	8.1	15.5	0.21
Patient 6	**2020/1/30**	4.5	54.1	36.1	8.6	2.43	1.6	0.38	4.64	146	40.9	213	11.2	7.9	15.7	0.17
	2020/2/3	4.2	49.9	40.8	7.2	2.09	1.7	0.3	265	150	43	265	11.2	7.7	15.7	0.2
	2020/2/15	6	59.2	31.5	7.3	3.56	1.9	0.44	4.81	153	43.9	262	10.9	7.7	15.3	0.2
Patient 7	**2020/1/30**	2.4	71.4	26.6	1.7	1.69	0.6	0.04	3.97	124	35.6	136	11.9	8.6	16.2	0.12
	2020/2/3	4.2	59.8	32.6	7.4	2.51	1.4	0.31	4.45	134	38.8	164	11.9	9.9	10.9	0.16
	2020/2/8	3.7	53.5	35.5	7.8	1.98	0.29	0.12	4.01	125	36.3	194	11.1	8.2	16	0.16
Patient 8	**2020/1/28**	2.8	70.9	23.1	5.9	1.98	0.7	0.17	4.88	157	45.5	205	15.9	8.7	15.9	0.18
	2020/1/30	3.5	74.1	18.3	7.5	2.57	0.6	0.26	4.47	147	41	253	11.4	8.8	15.8	0.22
	2020/2/1	8.3	89.4	6.5	4	7.38	0.5	0.33	4.41	146	40.2	311	11.1	8.8	16	0.27
Patient 9	**2020/1/29**	3.7	67.2	19.6	12.6	2.49	0.7	0.46	4.97	164	46.6	212	11.7	9.1	16	0.19
	2020/2/1	4.4	80.2	14.3	5.2	3.56	0.6	0.23	4.56	150	41	210	11.5	9.2	16.2	0.19
	2020/2/4	5.8	85.5	5.8	8.6	4.92	0.3	0.49	4.64	151	43.1	275	11.7	8.5	16.1	0.24
Patient 10	**2020/1/30**	4.8	72.1	20.3	7.1	3.46	1	0.34	4.93	148	45.1	235	11.9	10.1	16.4	0.24
	2020/2/3	6.2	72.6	19.4	6.7	4.5	1.2	0.41	4.72	144	41.7	226	11.5	10.1	16.4	0.23
	2020/2/9	5.1	67.8	23.3	7.5	3.47	1.2	0.38	3.66	116	32.9	168	11.5	10.6	16.7	0.18
	2020/2/15	5.1	71.2	19.8	7.1	3.65	1	0.36	3.48	117	32.5	214	11.4	10	16.2	0.22
Patient 11	**2020/1/31**	4.9	80.4	17.9	1.5	3.94	0.9	0.07	4.07	128	35.9	140	11.5	9	16.1	0.13
	2020/2/4	12.9	85.1	11.2	3.6	10.99	1.5	0.47	4.47	139	40.4	216	11.5	8.6	16.2	0.19
	2020/2/7	7	62.2	27.5	9.1	4.36	1.9	0.64	3.68	113	32.5	272	12	9.7	10.4	0.26
Patient 12	**2020/1/31**	5	60.4	30.3	7.6	3.03	1.5	0.38	4.24	131	38.1	177	12	8.8	15.9	0.16
	2020/2/6	5.9	66.2	23.8	6.8	3.93	1.4	0.4	4.61	143	42	250	11.8	8.8	15.9	0.22
Patient 13	**2020/2/2**	5.6	84.3	12.50	2.9	4.68	0.7	0.16	4.81	140	42.3	259	11.6	9	16.2	0.23
	2020/2/4	11.8	88.4	7.2	4.3	10.4	0.9	0.51	4.29	127	36.5	306	11.5	8.8	16.3	0.27
	2020/2/7	9.9	80.6	15.4	3.8	7.98	1.5	0.38	4.19	124	35	385	11	8	16.1	0.31
	2020/2/11	6.7	69.6	21.6	7	4.64	1.4	0.47	4.34	126	37.4	86.2	344	8.2	15.7	8.2
	2020/2/15	5.2	62.8	29.7	6.8	3.23	1.5	0.35	4.07	125	35.8	303	12.5	8.7	16	0.26
Patient 14	**2020/2/5**	4	44.5	40.2	14.4	1.79	1.6	0.58	4.27	139	40.4	174	11.4	10.2	11.5	0.18
	2020/2/11	4	39.8	48.3	10.2	1.61	2	0.41	4.65	149	44.9	184	16.1	9.1	16.1	0.17
Patient 15	**2020/2/7**	4.5	58.1	32.9	8.5	2.63	1.5	0.38	4.2	126	36.5	157	11.5	8.5	16	0.13
	2020/2/13	8	64.4	24.5	9.3	5.14	2	0.74	4.23	126	37.3	248	11.6	8.4	15.9	0.21
Patient 16	**2020/2/7**	5.3	53	30.3	16.3	2.83	1.6	0.87	0.01	150	44.5	119	12.4	11.3	13	0.13
	2020/2/12	9.3	74.4	18.7	6.8	6.89	1.7	0.63	4.8	145	44.5	203	12.4	10	16.8	0.2
	2020/2/15	8.7	60.9	28.6	8.7	5.31	2.5	0.76	4.86	152	44.7	256	11.8	9.1	16.7	0.23
Patient 17	**2020/2/9**	6.4	72.7	21.3	5.6	4.62	1.4	0.36	4.09	128	37	346	11.3	8.8	15.8	0.31
	2020/2/15	4.5	62.1	29.4	7.6	2.82	1.3	0.34	3.97	120	35.7	342	11.5	8.7	15.5	0.3
	2020/2/20	6.8	56.9	37.7	4.8	3.87	2.6	0.33	4.36	132	39.5	426	11.7	8.7	15.5	0.37
	2020/2/24	4.8	52.4	36.9	8.7	2.5	1.8	0.41	3.99	119	36	308	12.1	8.8	15.3	0.27
Patient 18	**2020/2/8**	5.1	82.1	10.9	6.3	4.2	0.6	0.32	4.7	144	43	326	11.8	7.6	15.8	0.25
	2020/2/15	6.7	72.9	19	7.2	4.9	1.3	0.48	4.68	147	42.3	388	11.6	7.4	15.7	0.29
Patient 19	**2020/2/9**	4.8	65.8	23.3	8.8	3.15	1.1	0.42	4.37	134	38.6	124	12.3	12	16.5	0.15
	2020/2/13	4.3	55.7	28.7	9.7	2.38	1.2	0.41	4.38	133	39.2	179	12.4	10.6	16.5	0.19
	2020/2/18	5.1	68.7	19	7.1	3.49	1	0.36	4.36	132	39.5	191	12.7	10.5	16.4	0.2
Patient 22	**2020/2/10**	6	68.1	23.2	7.7	4.05	1.4	0.46	4.24	126	36.6	122	12.1	11.9	16.6	0.15
	2020/2/15	4.3	52.8	38.8	7	2.25	1.7	0.3	4.21	127	37	240	12.3	10.3	16	0.25
	2020/2/18	5.2	57.1	34.1	7.3	2.93	1.8	0.38	4.21	126	37.1	247	12.8	10.2	15.9	0.25
Patient 23	**2020/2/10**	5.5	54.1	35.4	8.6	2.99	2	0.47	4.44	145	42.4	154	11.7	9.1	16.2	0.94
	2020/2/15	7.2	61.7	29.5	6.3	4.43	2.1	0.45	4.6	150	44	260	11.6	8.8	16.2	0.23
Patient 24	**2020/2/10**	4.1	83	12.8	3.6	3.42	0.5	0.15	4.46	149	43.1	112	12	9.4	16.3	0.11
	2020/2/13	6.1	92.7	5.1	2.1	5.64	0.3	0.13	4.87	160	46.2	138	12	9.7	16.6	0.13
	2020/2/15	11.5	92.2	4.6	3.1	10.63	0.5	0.36	4.03	137	38.4	149	11.6	9.1	16.2	0.14
	2020/2/18	6.1	80.6	12.9	6.3	4.92	0.8	0.38	4.54	152	44.4	220	11.8	9.1	16.4	0.2
	2020/2/21	8.3	79.1	13.4	7.5	6.52	1.1	0.62	4.46	145	43.3	280	11.8	8.6	16	8.6
	2020/2/24	6.8	75	17.3	7.4	5.06	1.2	0.5	4.17	136	40.3	223	11.7	8.7	16	0.2
Patient 25	**2020/2/14**	5.2	55.5	39.2	4.7	2.89	2	0.25	4.51	137	42.2	260	11.8	8.7	15.9	0.23
	2020/2/19	9.1	72.5	20.4	6.7	6.59	1.9	0.61	4.18	131	38.1	176	11.7	9.1	16.2	0.16
	2020/2/22	4.9	60.5	31.3	4.8	2.98	1.5	0.24	4.44	136	41.1	197	11.6	9.6	16.6	0.19
	2020/3/1	6.1	69.7	25.2	4.5	4.27	1.6	0.28	4.25	131	39.7	297	11.9	8.1	15.5	0.24
Patient 26	**2020/2/14**	4.2	57.9	30.4	9.7	2.42	1.3	0.4	4.7	150	44.7	179	11.9	11.3	16	0.2
	2020/2/19	4.1	57.6	33.3	6.7	2.34	1.4	0.27	4.77	152	43.9	178	11.5	10.7	16.3	0.19
	2020/2/23	5	53.5	37.9	5.4	2.66	0.27	0.15	4.88	152	44.9	186	11.5	10.9	16.1	0.2
	2020/3/2	4.7	61.6	29.3	6.5	2.9	1.4	0.31	4.96	155	45.4	200	11.3	11	16.1	0.22
Patient 27	**2020/2/14**	7	68.6	24.1	6.6	4.77	1.7	0.46	5.16	166	49.8	209	11.7	9.2	15.8	0.19
	2020/2/17	6.5	81.7	14.2	3.9	5.32	0.9	0.25	4.93	155	46.9	152	11.8	8.9	15.7	0.14
	2020/2/21	12.5	89.3	7.2	3.4	11.17	0.9	0.43	4.47	144	41.3	171	11.5	9.5	16.1	0.16
	2020/2/23	12.4	93.2	4.6	2.2	11.59	0.6	0.27	4.63	146	43	223	11.3	9.2	16.1	0.21
	2020/2/25	6	93.1	19.2	7.5	4.38	1.1	0.45	4.41	141	40.9	242	11.4	9.2	16	0.22
	2020/2/29	8.4	63	31.3	5	5.26	2.6	0.42	5.3	166	50.3	345	11.8	9	16.2	0.31

Laboratory Diagnosis	Comprehensive Metabolic Panel	Alanine Aminotransferase (U/L)	Aspartate Aminotransferase (U/L)	Alkaline Phosphatase (U/L)	Glutamyltransferase (U/L)	Lactate Dehydrogenase (U/L)	Total Bilirubin (umol/L)	Albumin (g/L)	Globulin (g/L)	Glucose (mmol/L)	Urea (mmol/L)	Creatinine (umol/L)	Uric Acid (umol/L)	Triglyceride (mmol/L)	Total Cholesterol (mmol/L)	Calcium (mmol/L)	Phosphorus (mmol/L)	Potassium (mmol/l)	Sodium (mmol/l)	Chlorine (mmol/l)	eGFR (ml/min/1.73m^2)
	Normal Range	7-40	15-35	42-128	7-45	110-240	0-20	40-55	20-40	3.8-6.2	1.7-8.3	40-97	90-420	0.56-1.70	3.10-5.70	2.1-2.7	.097-1.61	3.5-5.3	137-147	99-110	100-120
Patient 1	**2020/1/26**	23	30	80	95	334	9.8	41.4	/	/	6.1	122	373	2.25	4.19	2.28	0.98	4.61	141	101.4	/
	2020/1/28	29	36	83	101	403	14.5	41.8	/	/	6.4	112	439	/	/	2.24	1.49	4.27	135	100.2	62.53
	2020/1/31	55	30	68	89	295	11	33.5	/	/	7.2	72	273	1.66	4.06	2.19	0.84	4.63	137.2	107.1	104.12
	2020/2/3	27	15	61	73	229	21.6	34	/	5.83	7.1	79	264	4.22	4.34	2.12	0.75	3.89	134.2	97.3	93.55
	2020/2/8	33	19	77	87	195	9.9	35.6	/	6.22	4.5	76	259	4.93	4.71	2.17	/	4.24	145	104.4	/
Patient 2	**2020/1/27**	14	18	71	9	111	5.9	35.7	/	/	2.8	42	300	1.82	5.14	2.09	1.32	3.58	136.5	103.6	/
	2020/2/3	8	13	78	8	113	3.3	30.9	/	4.44	2.9	40	252	2.87	4.61	1.97	1.12	3.41	138	105.4	>120
Patient 3	**2020/1/27**	25	33	70	40	220	8.8	49.1	/	/	3.6	60	487	1.17	3.41	2.34	1.46	3.75	139.7	103.9	/
	2020/2/3	11	12	63	23	162	9.5	43.7	/	4.06	2.4	56	413	3.44	3.66	2.19	1.05	3.76	138.8	102.9	>120
Patient 4	**2020/1/27**	47	30	65	41	197	6	40.1	/	/	3.5	63	271	0.87	3.63	2.22	1.32	4.81	134.8	98.9	/
	2020/2/1	36	27	76	39	228	8.5	43.7	/	/	3.1	63	253	1.08	4.96	2.32	1.31	4.99	133.4	96.7	>120
	2020/2/6	28	15	46	29	/	7.7	30.4	/	/	5.1	56	233	2.92	4.2	2.02	1.24	4.44	138	102.6	>120
Patient 5	**2020/1/28**	28	22	175	123	129	10.3	24.6	/	6.73	4.1	59	175	0.89	2.25	1.86	/	3.35	131	90	/
	2020/2/2	24	14	99	66	133	8.7	31.8	/	/	4.5	55	145	1.43	2.65	2.22	/	4.93	138	99.2	/
	2020/2/4	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2.11	1	5.27	135	96	/
	2020/2/6	27	19	64	43	187	10.7	41.5	/	/	8	39	156	2.87	2.46	2.24	0.9	4.56	132.4	97.1	>120
	2020/2/10	22	19	68	38	144	8.3	45.2	/	2.87	7.2	53	211	0.87	2.22	2.32	1.15	4.28	138.9	98.1	>120
	2020/2/12	34	27	57	31	143	13.7	47.7	/	9.43	7.7	50	183	0.91	1.72	2.35	/	3.91	143	97.9	/
Patient 6	**2020/1/30**	45	30	56	23	126	27.6	46.7	/	6.88	3.7	60	309	/	/	2.26	1.06	4.05	138.4	102.9	>120
	2020/2/3	33	27	48	18	128	14	44	/	5.01	4.6	65	246	2.17	3.72	2.19	1.1	4.47	139.5	104	>120
	2020/2/15	26	20	55	20	/	14.1	46.4	/	/	/	/	/	1.73	4.46	2.33	1.41	4.73	144	103.1	/
Patient 7	**2020/1/30**	22	25	121	33	163	11.9	43.3	/	10.67	4.6	51	278	/	/	2.19	1	4.21	140.2	107	115.02
	2020/2/3	24	27	111	28	166	11	45.1	/	5.18	6.3	54	321	3.51	5.45	2.12	1.22	3.12	141.9	101.2	107.68
	2020/2/8	24	22	113	28	175	3.7	36.1	/	5.87	4.2	37	102	6.52	4.47	2.18	/	3.54	148	106.9	/
Patient 8	**2020/1/28**	41	39	44	136	314	11.5	38.1	/	/	3.8	67	249	/	/	2.16	1.36	3.9	138	95.3	/
	2020/1/30	293	179	48	165	352	11.2	41.3	/	8.52	3.7	51	192	0.9	5.1	2.24	1.18	4.26	137.7	101.8	>120
	2020/2/1	179	20	44	141	177	17.6	37.9	/	9.44	5.8	58	190	/	/	2.21	1.42	3.94	137.5	101.7	>120
Patient 9	**2020/1/29**	25	39	71	33	262	8.2	39.9	/	5.92	3.5	75	210	2.33	4.08	2.08	/	3.59	135	91.9	/
	2020/2/1	24	35	56	29	288	28.9	35.1	/	6.34	2.8	59	147	1.14	4.11	1.95	0.72	3.34	133.1	97.2	>120
	2020/2/4	25	26	60	55	246	22.8	34.7	/	7.87	4.1	55	113	1.3	4.97	2.01	1.24	3.89	135.5	97.3	>120
Patient 10	**2020/1/30**	15	20	52	12	166	4.4	51.2	/	5.13	2.2	54	256	0.67	4.7	4.7	/	3.73	143	100.3	/
	2020/2/3	10	15	46	13	153	19.5	51.4	/	4.51	3.5	67	331	1.2	4.94	2.29	1.63	3.87	138.6	99.3	98.1
	2020/2/9	53	27	40	31	141	3.2	41	/	5.02	2.7	45	188	1.07	4.23	2.13	1.23	4.63	141.6	109.3	>120
	2020/2/15	24	18	40	24	133	5.3	41.1	/	4.44	2.3	47	284	0.98	4.18	2.2	/	4.81	146	106.9	/
Patient 11	**2020/1/31**	38	31	63	21	202	12.7	43.4	/	9.19	3.9	51	306	0.63	2.71	/	/	/	/	/	/
	2020/2/4	26	15	54	21	215	19.3	44.1	/	8.27	5.9	60	323	1.96	4.05	2.15	1.49	3.45	136.7	94	97.97
	2020/2/7	27	21	41	18	204	6.1	31.2	/	3.84	6.6	49	238	2.58	3.86	2.03	0.77	4.18	136.9	104.5	>120
Patient 12	**2020/1/31**	14	15	58	33	143	16.1	43.4	/	4.64	3.8	50	270	0.56	3.69	2.13	1.05	3.98	140.3	105.8	>120
	2020/2/6	16	20	60	37	180	31.2	43	/	/	4.5	59	306	/	/	2.21	1.1	4.39	140.8	105.5	116.46
Patient 13	**2020/2/2**	23	26	52	60	241	6.4	40.7	/	8.05	1.7	41	237	/	/	2.32	1.11	4.06	143	99.9	/
	2020/2/4	17	12	42	47	245	7.6	39.7	/	7.8	3.7	37	220	/	/	2.22	1.53	3.65	137.9	94.6	>120
	2020/2/7	14	14	33	37	173	11.2	35	/	4.86	5.8	41	289	4.01	5.58	2.13	1.17	3.85	135.5	94.1	>120
	2020/2/11	13	14	39	30	129	3.6	35.2	/	4.35	4.1	42	416	5.11	5.68	2.15	/	4.26	141	99.1	/
	2020/2/15	19	22	51	31	165	7	42.6	/	4.38	2.6	39	362	7.64	7.3	2.35	/	4.24	146	103.4	/
Patient 14	**2020/2/6**	37	34	59	33	198	8.1	41.8	/	4.41	4.3	73	378	0.58	4.23	2.12	0.96	5.29	141.8	106.4	110.28
	2020/2/11	42	30	61	30	176	8.9	39.1	/	4.29	5.2	86	367	2.84	4.83	2.09	/	3.79	145	104	/
Patient 15	**2020/2/7**	18	23	62	19	245	19.5	35.8	/	5.46	3.7	67	362	1.21	3.05	2.04	1.12	4	141.3	107.5	115.77
	2020/2/13	33	25	85	20	211	14.4	34.6	/	4.93	2.5	72	269	4.55	3.65	2.16	/	3.89	146	103.6	/
Patient 16	**2020/2/6**	30	35	29	29	307	14.7	45.9	/	5.45	6	76	414	0.79	3.79	2.19	1.07	4.9	133.3	99	117.19
	2020/2/12	20	15	25	21	223	14.3	36.7	/	4.05	3.9	55	214	1.51	3.65	2.16	/	5.6	144	105.5	/
	2020/2/15	78	40	30	40	192	10.3	39.9	/	4.62	5.4	65	288	2.56	3.77	2.26	/	4.62	146	106.7	/
Patient 17	**2020/2/9**	18	16	76	31	189	17.2	39.4	/	7.29	3.5	60	317	1.27	3.4	2.13	0.95	3.77	142.2	106.9	99.23
	2020/2/15	22	19	81	41	158	12.5	37.1	/	4.7	2.5	63	296	2.97	3.74	2.16	/	4.62	147	107.9	/
	2020/2/20	61	37	115	119	173	6.7	44.3	/	5.17	4.1	57	278	2.19	4.98	2.32	/	4.99	144	102.1	/
	2020/2/24	81	42	98	100	161	5.4	38.7	/	4.66	4.4	58	293	1.88	5.25	2.2	/	4.49	146	103.2	/
Patient 18	**2020/2/8**	60	40	101	112	371	13.9	40.6	/	/	4.6	59	185	/	/	2.34	0.95	5.16	140	97.8	/
	2020/2/15	83	26	73	78	223	17.9	39.6	/	8.14	3.2	74	280	3.95	5.01	2.29	/	4.36	145	100	/
Patient 19	**2020/2/9**	19	21	69	26	145	10.3	36.2	/	6.31	2.8	54	276	1.36	3.33	2.1	0.94	3.44	139	107.2	>120
	2020/2/13	15	18	72	23	145	21.9	32.7	/	4.88	5.2	60	153	1.81	3.27	2.11	/	4.4	145	109	/
	2020/2/18	23	25	77	24	157	7.5	35.6	/	4.83	3.2	52	185	1.54	3.27	2.26	/	4.73	143	105	/
Patient 22	**2020/2/10**	19	28	75	13	253	12.9	38	/	5.61	3.3	43	112	/	/	2.1	0.82	3.52	142.1	106.6	>120
	2020/2/15	31	30	73	17	189	12.3	37.1	/	/	4.4	50	175	/	/	2.29	0.85	4.32	147	102.4	/
	2020/2/18	22	20	73	22	167	12	39.5	/	4.8	5.3	51	204	4.24	5.22	2.38	/	4.77	145	102.9	/
Patient 23	**2020/2/10**	9	12	78	17	174	10.7	39.5	/	5.21	2.4	61	289	2.06	3.49	2.04	1.02	3.98	141.6	107	>120
	2020/2/15	13	13	91	18	158	5.6	38.5	/	4.87	4.5	69	361	6.29	4.29	2.24	/	4.55	147	105.3	/
Patient 24	**2020/2/10**	53	60	44	85	323	9.7	35.7	/	6.52	4.6	59	260	0.94	4.05	1.9	0.61	3.37	132.3	97.4	>120
	2020/2/13	54	51	48	92	428	15.3	33.7	/	10.63	2.9	59	195	1.05	4.03	1.93	/	3.37	140	94	/
	2020/2/15	55	46	49	97	/	7.4	29.5	/	/	5.1	47	108	/	/	2.02	0.56	3.6	141	95.9	/
	2020/2/18	55	27	48	122	257	11.1	33.2	/	5.68	5.7	51	102	1.49	3.83	2.01	/	4.95	139	98.1	/
	2020/2/21	63	45	51	119	222	11.8	40.1	/	6.17	4.3	51	149	1.93	4.19	2.2	/	4.94	139	95.6	/
	2020/2/24	46	31	50	106	217	9.2	42.8	/	5.83	3.7	50	155	1.2	4.38	2.22	/	4.41	141	97.9	/
Patient 25	**2020/2/14**	8	16	85	14	146	9.7	42.6	/	6.16	4.1	48	218	0.89	4.03	2.3	/	4.27	147	105.5	/
	2020/2/19	12	19	75	11	142	11.7	39.2	/	6.98	3.2	56	229	1.18	4	2.2	/	3.87	142	98.5	/
	2020/2/22	27	30	81	18	185	5.9	40.6	/	6.7	3.3	51	217	1.21	4.21	2.39	/	4.75	145	100.5	/
	2020/3/1	15	18	85	24	149	4.7	42.8	/	7.78	4	50	227	1.11	3.68	2.39	/	5.05	144	101.8	/
Patient 26	**2020/2/14**	11	14	58	19	126	7.5	46.5	/	4.51	4.5	70	301	0.94	3.18	2.35	/	4.61	147	106	/
	2020/2/19	17	21	52	16	148	7.4	44.1	/	4.28	3.2	66	270	2.32	3.27	2.28	/	4.76	146	106.6	/
	2020/2/23	41	25	53	30	167	6.8	43.1	/	4.93	4.6	66	300	1.18	3.73	2.29	/	4.58	146	107.5	/
	2020/3/2	19	19	56	29	132	7.7	45.8	/	4.81	5.3	63	307	0.73	3.54	2.34	/	4.43	143	103.6	/
Patient 27	**2020/2/14**	22	22	85	42	234	8.4	47.3	/	5.08	4.9	68	292	1.65	5.58	2.32	/	4.51	145	102.8	/
	2020/2/17	23	28	75	33	197	10.3	41.4	/	7.86	3.9	68	249	1.33	4.64	2.11	/	3.53	138	97.8	/
	2020/2/21	40	24	67	58	204	6.6	38	/	6.73	4.6	49	170	1	4.5	2.04	/	4.68	140	97.8	/
	2020/2/23	27	14	59	49	204	9.3	35.6	/	9.11	4.9	51	146	0.65	3.96	2.16	/	4.07	142	101.9	/
	2020/2/25	34	17	47	44	209	8	33.6	/	6.01	5	52	142	1.15	4.03	2.08	/	3.88	145	102.8	/

Laboratory Diagnosis	Infection Test	Erythrocyte Sedimentation Rate (mm/1h)	Ferritin (μg/L)	Procalcitonin (ng/ml)	C-reactive Protein (mg/L)	Coagulation	International Normalized Ratio	Prothrombin Time (s)	Activated Partial Prothrombin Time (s)	Thrombin Time (s)	D-dimer (μg/ml)
	Normal Range	Male 0-15/Female 0-20	Male 0-322/Female 0-219	0-0.1	0.8-8	**Normal Range**	0.8-1.2	10-14	21-40	14.0-21	0-0.5
Patient 1	**2020/1/23**	/	/	/	101.4	**2020/1/26**	1.08	11.7	36.6	12.6	0.14
	2020/1/28	/	1253	0.08	/	**2020/1/28**	1.15	12.4	36.1	12.8	0.13
	2020/1/31	/	929.65	0.04	7.9	**2020/1/31**	1.04	11.2	30.8	14.7	0.37
	2020/2/3	/	881.9	0.04	1.6						
	2020/2/8	/	/	0.06	6.4	**2020/2/8**	1	10.8	28.9	14.9	0.59
Patient 2	**2020/1/27**	/	/	0.04	16.3	**2020/1/27**	0.99	10.7	26.7	13.1	0.21
	2020/2/3	47	14.16	0.06	/	**2020/2/3**	0.94	10.1	28.9	15.4	0.28
Patient 3	**2020/1/27**	/	/	0.05	/	**2020/1/27**	1.08	11.7	27.9	13.2	0.07
	2020/2/3	28	128.2	0.03	/	**2020/2/3**	1.01	10.9	31.7	15.1	0.06
Patient 4	**2020/1/27**	/	/	0.06	4.4	**2020/1/27**	1.23	13.3	30.7	15.1	0.51
	2020/2/1	50	/	0.04	7.1	**2020/2/1**	1.12	12.1	30.6	14.6	0.48
	2020/2/6	14	/	/	0.8	**2020/2/6**	1.1	11.9	31.6	15.3	0.69
Patient 5	**2020/1/28**	/	/	0.6	174.6	**2020/1/28**	1.51	16.3	26	15.8	0.76
	2020/1/31	/	564	/	/	**2020/2/2**	1.16	12.5	24.6	16.5	0.84
	2020/2/4	/	773.6	/	17.6						
	2020/2/6	/	892.7	0.08	7.4	**2020/2/6**	1.28	13.8	26.3	15.2	1.07
	2020/2/10	11	/	0.1	4.2	**2020/2/10**	1.38	14.9	29	16.4	0.58
	2020/2/12	/	/	/	2.1	**2020/2/12**	1.5	16.2	30.5	16.1	0.36
Patient 6	**2020/1/30**	8	248.5	0.03	0	**2020/1/30**	1.21	13.1	30.2	17.2	0.01
	2020/2/3	/	237	0.02	0	**2020/2/3**	1.12	12.1	31.7	19	0.06
	2020/2/15	/	/	/	1.3						
Patient 7	**2020/1/30**	14	339.4	0.04	1.8	**2020/1/30**	1.17	12.6	28	17	0.05
	2020/2/3	/	490.6	0.02	17						
	2020/2/8	/	/	0.06	3.5	**2020/2/8**	1.03	11.1	28.3	16.8	0.09
Patient 8	**2020/1/28**	/	/	0.12	49.1	**2020/1/28**	1.22	13.2	28.9	12.3	0.07
	2020/1/30	/	/	/	3.7						
	2020/2/1	/	/	/	0.3	**2020/2/1**	1.16	12.5	24.1	15.2	0.28
Patient 9	**2020/1/29**	40	/	0.09	12.3	**2020/1/29**	1.11	12	30.2	13.2	0.08
	2020/2/1	23	/	0.05	/	**2020/2/1**	1.24	13.4	32.4	13.5	0.16
	2020/2/4	25	/	0.04	3	**2020/2/4**	1.08	11.7	26.2	14.6	0.15
Patient 10											
	2020/2/3	/	83.46	0.02	0.7						
	2020/2/9	8	102.3	0.04	0.4	**2020/2/9**	1.06	11.5	28.7	19.9	0.08
Patient 11	**2020/1/31**	/	494.1	0.08	10.4	**2020/1/31**	1.19	12.9	32.7	13.6	0.06
	2020/2/4	56	/	0.07	75	**2020/2/4**	1.12	12.1	27.7	13	0.14
	2020/2/7	/	850.1	0.07	18.5	**2020/2/7**	1.07	11.6	26.2	14.7	0.2
Patient 12	**2020/1/31**	/	148	/	31.3	**2020/1/31**	1.39	15	38.2	13.7	0.05
	2020/2/6	/	/	/	13.6	**2020/2/6**	1.2	13	40.1	14.6	0.05
Patient 13	**2020/2/2**	/	/	0.05	63.8	**2020/2/2**	1.18	12.7	28.5	14.6	0.26
	2020/2/4	93	/	0.02	5.1	**2020/2/4**	1.17	12.6	23.4	14.8	0.17
	2020/2/7	95	408.1	0.03	0.9	**2020/2/7**	1.09	11.8	23.5	17.3	0.27
	2020/2/11	/	535.9	/	5.3						
	2020/2/15	60	550	/	6.1	**2020/2/15**	1.03	11.1	25.1	14.9	0.26
Patient 14	**2020/2/5**	4	/	/	1.3	**2020/2/5**	1.18	12.7	32.2	16.5	0.09
	2020/2/11	/	71.7	0.05	0.6	**2020/2/11**	1.06	11.5	30.4	16.5	/
Patient 15	**2020/2/7**	50	/	0.06	21.7	**2020/2/7**	1.22	13.2	31	13.9	0.22
	2020/2/13	/	343.5	/	4	**2020/2/13**	1.11	12	28.8	14.9	/
Patient 16	**2020/2/6**	9	928.5	0.09	6.8	**2020/2/6**	1.24	13.4	40.2	14.3	0.11
	2020/2/12	/	/	/	1.3	**2020/2/12**	1.12	12.1	35.3	15.1	0.14
	2020/2/15	/	917.9	/	0.6						
Patient 17	**2020/2/9**	/	180.2	0.05	/	**2020/2/9**	1.11	12	25.8	17.2	0.25
	2020/2/15	/	186.1	0.04	3.8	**2020/2/15**	0.98	10.6	27	15.4	0.34
	2020/2/20	/	/	/	1.8						
	2020/2/24	/	162	0.09	2	**2020/2/24**	1	10.8	26.6	16	0.26
Patient 18	**2020/2/8**	/	/	0.09	141.3	**2020/2/8**	1.11	12	30.5	14.6	0.31
	2020/2/15	81	1144	0.03	4.2	**2020/2/15**	1.11	12	29	14.8	0.18
Patient 19	**2020/2/9**	29	517.8	0.09	27.6	**2020/2/9**	1.25	13.5	27.2	17.5	0.07
	2020/2/13	/	354.6	0.07	1.9	**2020/2/13**	1.31	14.1	26.5	16.8	0.07
	2020/2/18	/	311.6	0.04	1.4	**2020/2/18**	1.07	11.6	26.3	16.5	/
Patient 22	**2020/2/10**	/	350.1	0.04	7.2	**2020/2/10**	1.13	12.2	27.3	15	0.2
	2020/2/15	/	/	/	0.3						
	2020/2/18	/	400.4	0.05	0.2	**2020/2/18**	1.01	10.9	25.3	16.3	/
Patient 23	**2020/2/10**	/	449.1	0.04	23.7	**2020/2/10**	1.09	11.8	27.4	17.9	/
	2020/2/15	/	/	/	1.5						
Patient 24	**2020/2/10**	/	839.7	0.2	67.3	**2020/2/10**	1.31	14.1	36.8	13.8	0.17
	2020/2/13	/	1446	0.18	68.3	**2020/2/13**	1.21	13.1	33.6	14.1	0.39
	2020/2/15	/	1105	0.1	/	**2020/2/15**	1.03	11.1	31	15.1	0.89
	2020/2/18	/	/	/	9.9	**2020/2/18**	1.15	12.4	35	14.6	/
	2020/2/21		838.2	0.14	4.6	**2020/2/21**	1.19	12.9	38.1	14.2	0.61
	2020/2/24	/	729.4	0.11	2.9	**2020/2/24**	1.15	12.4	36.3	14.2	0.43
Patient 25	**2020/2/14**	/	150.8	0.03	0.2	**2020/2/14**	1.08	11.7	31.5	16.1	0.09
	2020/2/19	/	/	0.09	122.6						
	2020/2/22	/	/	0.06	29.1	**2020/2/22**	1.02	11	29.2	12.3	/
	2020/3/1	59	264.3	0.07	2.8	**2020/3/1**	1.06	11.4	32.3	15	0.1
Patient 26	**2020/2/14**	/	38.78	0.04	0.4	**2020/2/14**	1.18	12.7	36.7	15.4	0.02
	2020/2/19	/	/	/	0.3	**2020/2/19**	1.14	12.3	36.7	16.6	/
	2020/2/23	/	/	0.06	0.2	**2020/2/23**	1.14	12.3	34.5	15.8	0.03
	2020/3/2	3	46.9	0.08	0.2	**2020/3/2**	1.2	13	36.2	15.5	0.04
Patient 27	**2020/2/14**	/	314.9	0.04	2.3	**2020/2/14**	1.05	11.3	38.1	13.6	0.21
	2020/2/17	/	447.1	0.06	35.5	**2020/2/17**	1.24	13.4	41.4	13.3	/
	2020/2/21	/	513.5	0.08	19.6						
	2020/2/23	/	/	0.17	68.2	**2020/2/23**	1.25	13.5	34.5	13.2	0.3
	2020/2/25	/	630.9	0.09	12	**2020/2/25**	1.25	13.5	34.6	14.6	/
	2020/2/29	19	732.8	0.06	2	**2020/2/29**	1.13	12.2	32.1	14.7	0.43

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Patient ID	Antiviral Medicines															
	Medicine1				Medicine2				Medicine3				Medicine4			
XYFY-001	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/26	2020/2/3	Umifenovir	200mg tid po	2020/1/29	2020/2/3	Interferon alfa-2b	5Mu bid inh	2020/1/29	2020/2/3				
XYFY-003	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/31	2020/2/6	Umifenovir	200mg tid po	2020/1/29	2020/2/6								
XYFY-004	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/30	2020/2/5	Umifenovir	200mg tid po	2020/1/29	2020/2/6	Interferon alfa-2b	5Mu bid inh	2020/1/31	2020/2/5				
XYFY-005	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/30	2020/2/3	Umifenovir	200mg tid po	2020/1/29	2020/2/4	Interferon alfa-2b	5Mu bid inh	2020/1/30	2020/2/6				
XYFY-006	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/30	2020/2/1	Umifenovir	200mg tid po	2020/1/30	2020/2/6								
XYFY-007	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/30	2020/2/2	Umifenovir	200mg tid po	2020/1/30	2020/2/6	Interferon alfa-2b	5Mu bid inh	2020/1/31	2020/2/6				
XYFY-008	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/29	2020/2/5	Umifenovir	200mg tid po	2020/1/28	2020/2/5	Interferon alfa-2b	5Mu bid inh	2020/1/28	2020/2/5	Oseltamivirphosphate	75mg bid po	#######	######
XYFY-009	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/29	2020/2/6	Umifenovir	200mg tid po	2020/1/29	2020/2/6	Interferon alfa-2b	5Mu bid inh	2020/1/29	2020/2/6				
XYFY-010	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/30	2020/2/4	Umifenovir	200mg tid po	2020/1/30	2020/2/4	Interferon alfa-2b	5Mu bid inh	2020/1/30	2020/2/6				
XYFY-011	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/31	2020/2/3	Umifenovir	200mg tid po	2020/1/31	2020/2/12	Interferon alfa-2b	5Mu bid inh	2020/1/31	2020/2/6				
XYFY-012	Lopinavir/Ritonavir	400mg/100mg bid po	2020/1/31	2020/2/12	Umifenovir	200mg tid po	2020/1/31	2020/2/12	Interferon alfa-2b	5Mu bid inh	2020/1/31	2020/2/6				
XYFY-013	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/1	2020/2/13	Umifenovir	200mg tid po	2020/2/1	2020/2/13	Interferon alfa-2b	5Mu bid inh	2020/2/2	2020/2/6				
XYFY-014	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/4	2020/2/13	Umifenovir	200mg tid po	2020/2/4	2020/2/13	Interferon alfa-2b	5Mu bid inh	2020/2/4	2020/2/10				
XYFY-015	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/6	2020/2/13	Umifenovir	200mg tid po	2020/2/6	2020/2/13	Interferon alfa-2b	5Mu bid inh	2020/2/6	2020/2/13				
XYFY-016	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/5	2020/2/13	Umifenovir	200mg tid po	2020/2/5	2020/2/13	Interferon alfa-2b	5Mu bid inh	2020/2/5	2020/2/13				
XYFY-017	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/8	2020/2/15	Umifenovir	200mg tid po	2020/2/8	2020/2/15	Interferon alfa-2b	5Mu bid inh	2020/2/24	2020/2/27				
XYFY-018	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/8	2020/2/15	Umifenovir	200mg tid po	2020/2/8	2020/2/15	Interferon alfa-2b	5Mu bid inh	2020/2/8	2020/2/12				
XYFY-019	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/8	2020/2/16	Umifenovir	200mg tid po	2020/2/8	2020/2/16								
XYFY-022	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/9	2020/2/18	Umifenovir	200mg tid po	2020/2/9	2020/2/18	Interferon alfa-2b	5Mu bid inh	2020/2/10	2020/2/10				
XYFY-023	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/9	2020/2/15	Umifenovir	200mg tid po	2020/2/9	2020/2/16								
XYFY-024	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/9	2020/2/13	Umifenovir	200mg tid po	2020/2/9	2020/2/20	Interferon alfa-2b	5Mu bid inh	2020/2/9	2020/2/15				
XYFY-025	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/13	2020/2/17	Umifenovir	200mg tid po	2020/2/13	2020/2/18	Interferon alfa-2b	2Mu tid inh	2020/2/15	2020/2/24				
XYFY-026	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/13	2020/2/17	Umifenovir	200mg tid po	2020/2/13	2020/2/18	Interferon alfa-2b	5Mu bid inh	2020/2/24	2020/3/7				
XYFY-027	Lopinavir/Ritonavir	400mg/100mg bid po	2020/2/13	2020/2/16	Umifenovir	200mg tid po	2020/2/13	2020/2/23	Interferon alfa-2b	2Mu tid inh	2020/2/15	2020/2/24				

Patient ID	Antibacterial Drugs															
	Medicine1				Medicine2				Medicine3				Medicine4			
XYFY-001	Moxifloxacin Hydrochloride	0.4g qd ivgtt	2020/1/28	2020/2/6												
XYFY-003	Moxifloxacin Hydrochloride	0.4g qd po	2020/1/27	2020/2/2												
XYFY-004	Moxifloxacin Hydrochloride	0.4g qd po	2020/1/31	2020/2/6												
XYFY-005	Biapenem	0.3g q8h ivgtt	2020/1/29	2020/2/6	Linezolid	0.6g q12h ivgtt	2020/2/5	2020/2/13								
XYFY-006	Moxifloxacin Hydrochloride	0.4g qd po	2020/1/30	2020/2/6												
XYFY-007	Moxifloxacin Hydrochloride	0.4g qd po	2020/1/26	2020/2/7												
XYFY-008	Moxifloxacin Hydrochloride	0.4g qd po	2020/1/26	2020/2/28	Moxifloxacin Hydrochloride	0.4g qd ivgtt	2020/1/29	2020/2/5								
XYFY-009	Moxifloxacin Hydrochloride	0.4g qd ivgtt	2020/1/28	2020/2/9												
XYFY-010																
XYFY-011	Moxifloxacin Hydrochloride	0.4g qd ivgtt	2020/1/31	2020/2/3	Cefperazone-Sulbactam	3g q8h ivgtt	2020/2/4	2020/2/12								
XYFY-012																
XYFY-013	Moxifloxacin Hydrochloride	0.4g qd ivgtt	2020/2/1	2020/2/7												
XYFY-014																
XYFY-015	Moxifloxacin Hydrochloride	0.4g qd po	2020/2/6	2020/2/15												
XYFY-016	Moxifloxacin Hydrochloride	0.4g qd ivgtt	2020/2/5	2020/2/15												
XYFY-017	Moxifloxacin Hydrochloride	0.4g qd po	2020/2/8	2020/2/13	Cefperazone-Sulbactam	3g q8h ivgtt	2020/2/13	2020/2/20								
XYFY-018	Moxifloxacin Hydrochloride	0.4g qd ivgtt	2020/2/9	2020/2/15												
XYFY-019	Moxifloxacin Hydrochloride	0.4g qd po	2020/2/8	2020/2/12	Cefperazone-Sulbactam	3g q8h ivgtt	2020/2/12	2020/2/19								
XYFY-022	Cefperazone-Sulbactam	3g q8h ivgtt	2020/2/12	2020/2/19												
XYFY-023																
XYFY-024	Cefperazone-Sulbactam	3g q8h ivgtt	2020/2/10	2020/2/23												
XYFY-025	Moxifloxacin Hydrochloride	0.4g qd po	2020/2/13	2020/2/15	Levofloxacin Hydrochloride	500mg qd ivgtt	2020/2/19	2020/2/25								
XYFY-026	Moxifloxacin Hydrochloride	0.4g qd po	2020/2/13	2020/2/16												
XYFY-027	Moxifloxacin Hydrochloride	0.4g qd po	2020/2/13	2020/2/16	Ceftriaxone	3g qd ivgtt	2020/2/17	2020/2/22	Moxifloxacin Hydrochloride	0.4g qd po	2020/2/22	2020/3/1	Cefperazone-Sulbactam	3g q8h ivgtt	2020/2/22	2020/3/1

Patient ID	Immunoglobulin			
	Medicine1			
XYFY-001	Immunoglobulin	20g/d	######	######
XYFY-003				
XYFY-004				
XYFY-005				
XYFY-006				
XYFY-007				
XYFY-008				
XYFY-009				
XYFY-010				
XYFY-011	Immunoglobulin	15g qd	######	######
XYFY-012				
XYFY-013	Immunoglobulin	20g qd	######	######
XYFY-014				
XYFY-015				
XYFY-016				
XYFY-017				
XYFY-018				
XYFY-019				
XYFY-022				
XYFY-023				
XYFY-024				
XYFY-025				
XYFY-026				
XYFY-027	Immunoglobulin	20g qd	######	######

Patient ID	Drugs prescribed for glucocorticoid therapy															
	Medicine1				Medicine2				Medicine3				Medicine4			
XYFY-001	Methylprednisolone	40mg bid ivgtt	######	#######	Methylprednisolone	60mg qd ivgtt	#######	#######	Methylprednisolone	40mg qd ivgtt	#######	2020/2/1	Methylprednisolone	20mg qd ivgtt	2020/1/31	2020/2/1
XYFY-003	Ketotifen fumarate	1mg qd qn	######	2020/2/2												
XYFY-004	Methylprednisolone	40mg bid ivgtt	######	2020/2/3	Budesonide	1mg qd inh	#######	2020/2/5								
XYFY-005																
XYFY-006																
XYFY-007	Methylprednisolone	40mg bid ivgtt	######	#######												
XYFY-008	Methylprednisolone	40mg bid ivgtt	######	#######	Methylprednisolone	40mg qd ivgtt	2020/2/1	2020/2/2	Budesonide	1mg qd inh	#######	2020/2/5				
XYFY-009	Methylprednisolone	40mg bid ivgtt	######	2020/2/2	Methylprednisolone	40mg qd ivgtt	2020/2/3	2020/2/3	Methylprednisolone	20mg qd ivgtt	#######	2020/2/4				
XYFY-010																
XYFY-011	Methylprednisolone	40mg bid ivgtt	######	2020/2/6												
XYFY-012																
XYFY-013	Methylprednisolone	40mg bid ivgtt	######	2020/2/6	Budesonide	1mg qd inh	2020/2/2	2020/2/6								
XYFY-014																
XYFY-015																
XYFY-016	Methylprednisolone	40mg bid ivgtt	######	#######												
XYFY-017																
XYFY-018	Budesonide	1mg qd inh	######	#######												
XYFY-019																
XYFY-022	Ketotifen fumarate	1mg qn po	######	#######												
XYFY-023																
XYFY-024	Methylprednisolone	40mg bid ivgtt	######	#######	Budesonide	1mg qd inh	#######	2020/3/2								
XYFY-025																
XYFY-026																
XYFY-027	Methylprednisolone	40mg bid ivgtt	######	#######												

Patient ID	Others																			
	Medicine1				Medicine2				Medicine3				Medicine4				Medicine5			
XYFY-001																				
XYFY-003	Lianhua Qingwen Capsule	6g tid po	2020/2/8	2020/2/9																
XYFY-004	Lianhua Qingwen Capsule	6g tid po	2020/1/31	2020/2/12																
XYFY-005																				
XYFY-006	Huoxiang Zhengqi Capsule	0.9 tid po	2020/1/31	2020/2/17	Live Combined Bacillus Subtilis and Enterococcus Faecium Enteric-coated Capsules	0.75 tid po	2020/1/31	2020/2/17												
XYFY-007	Chinese medicine decoction	1pkt bid po	2020/2/5	2020/2/10	Lianhua Qingwen Capsule	6g tid po	2020/2/8	2020/2/10												
XYFY-008	Acetylcysteine	0.3g qd inh	2020/1/28	2020/2/5																
XYFY-009	Amlodipine Besylate	5mg qd po	2020/2/1	2020/2/3																
XYFY-010																				
XYFY-011	Xuebijing Injection	50ml bid ivgtt	2020/1/31	2020/2/2	Live Combined Bacillus Subtilis and Enterococcus Faecium Enteric-coated Capsules	0.5 tid po	2020/1/31	2020/2/12	Thymalfasin	1.6mg qod ih	2020/2/1	2020/2/12	Repaglinide	2mg tid po	2020/2/5	2020/2/12	Glargine Insulin	16u qn ih	2020/2/5	2020/2/12
XYFY-012	Huoxiang Zhengqi Capsule	0.9 tid po	2020/2/2	2020/2/12																
XYFY-013	Ipratropium Bromide	2.5ml qd inh	2020/2/2	2020/2/6	Xuebijing Injection	50ml bid ivgtt	2020/2/2	2020/2/6												
XYFY-014	Lianhua Qingwen Capsule	6g tid po	2020/2/4	2020/2/14																
XYFY-015	Xuebijing Injection	50ml bid ivgtt	2020/2/9	2020/2/15																
XYFY-016																				
XYFY-017	Diammonium Glycyrrhizinate Enteric-coated Capsules	150mg tid po	2020/2/14	2020/2/27	Lianhua Qingwen Capsule	6g tid po	2020/2/12	2020/2/25												
XYFY-018	Xuebijing Injection	50ml bid ivgtt	2020/2/9	2020/2/15																
XYFY-019	Live Combined Bacillus Subtilis and Enterococcus Faecium Enteric-coated Capsules	0.5g tid po	2020/2/8	2020/2/21																
XYFY-022																				
XYFY-023	Lianhua Qingwen Capsule	6g tid po	2020/2/16	2020/2/17																
XYFY-024	Human Albumin	10g qd ivgtt	2020/2/15	2020/2/23	Convalescent Plasma	200ml	2020/2/14	2020/2/14	Convalescent Plasma	250ml	2020/2/26	2020/2/26	Ipratropium Bromide	2.5ml bid inh	2020/2/15	2020/3/2				
XYFY-025	Live Combined Bacillus Subtilis and Enterococcus Faecium Enteric-coated Capsules	0.5g tid po	2020/2/13	2020/2/18	Diammonium Glycyrrhizinate Enteric-coated Capsules	150mg tid po	2020/2/20	2020/2/24	Convalescent Plasma	200ml	2020/3/6	2020/3/6								
XYFY-026	Live Combined Bacillus Subtilis and Enterococcus Faecium Enteric-coated Capsules	0.5g tid po	2020/2/13	2020/2/17	Diammonium Glycyrrhizinate Enteric-coated Capsules	150mg tid po	2020/2/15	2020/2/23												
XYFY-027	Acetylcysteine	3.0 bid inh	2020/2/22	2020/3/2	Thymalfasin	1.6mg qod ih	2020/2/18	2020/2/29												

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Symptoms of COVID-19 patients before hospital admission and at hospital admission. PBT: peak body temperature. BT: body temperature. BF: breath frequency. BP: blood pressure. HR: heart rate. BOS: blood oxygen saturation. t/m: times/min. 0: No; 1: Yes. -: No fever. In terms of armpit temperature, 99 F (37.2 ºC) or higher is considered as a fever.

	Symptoms before hospital admission											Basic information at hospital admission				
Patient ID	**PBT (℃)**	**Dry Cough**	**Sputum**	**Breath of Shortness**	**Breath Difficulty**	**Headache**	**Sore Throat**	**Vomit**	**Diarrhoea**	**Sore Muscle**	**Fatigue**	**BT (℃)**	**BF (t/m)**	**BP (mmHg)**	**HR (t/m)**	**BOS %**
XYFY-001	39.5	0	0	0	0	0	1	1	0	0	1	37.9	23	130/70	76	99
XYFY-002	37.3	0	0	0	0	0	0	0	0	0	0	36.6	15	115/72	72	95
XYFY-003	37.5	1	1	0	0	0	0	0	0	0	0	37.3	16	120/80	72	100
XYFY-004	38	0	0	0	0	0	0	0	0	0	0	37.1	22	120/80	75	98
XYFY-005	39.2	0	0	1	0	0	0	0	0	0	0	38.4	20	147/87	123	95
XYFY-006	37.5	1	1	0	0	0	0	0	0	0	0	36.0	18	123/76	85	99
XYFY-007	37.3	0	1	1	1	0	0	1	1	0	1	37.0	32	98/70	60	99
XYFY-008	39	0	1	1	0	0	0	0	0	0	0	37.7	16	120/70	86	98
XYFY-009	38.3	0	0	0	0	0	0	0	1	0	0	38.2	15	137/98	98	98
XYFY-010	37.7	1	0	1	0	0	0	0	0	0	0	36.4	18	134/96	74	99
XYFY-011	39.3	1	1	1	0	0	0	0	0	0	0	39.3	25	125/93	104	92
XYFY-012	38.2	1	1	0	0	0	0	0	0	0	0	37.4	16	101/68	81	100
XYFY-013	38.5	0	1	1	1	0	1	0	0	0	1	36.5	18	120/70	86	95
XYFY-014	38	1	0	0	0	0	0	0	0	0	0	37.0	20	130/104	80	99
XYFY-015	39	1	0	0	0	0	0	0	0	0	1	36.7	21	123/74	85	94
XYFY-016	38.7	1	1	1	0	0	1	0	0	0	0	38.0	22	115/76	94	95
XYFY-017	39	1	1	1	1	0	0	0	0	0	1	36.1	25	100/74	68	99
XYFY-018	37.2	1	0	0	0	0	0	0	0	0	0	36.0	18	123/76	85	99
XYFY-019	-	1	1	0	0	0	0	0	0	0	1	36.5	18	160/90	88	99

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Symptoms of COVID-19 patients during hospitalization. PBT: peak body temperature. BT: body temperature. BF: breath frequency. BP: blood pressure. HR: heart rate. BOS: blood oxygen saturation. t/m: times/min. 0: No; 1: Yes. -: No fever. ^: vomit. #: sore muscle. *: headache. ~: sore throat. !: diarrhoea.

Patient ID	PBT (℃)	Dry Cough	Sputum	Breath of Shortness	Breath Difficulty	Sore Throat	Diarrhoea	Fatigue	Min. BF (t/m)	Max. BF (t/m)	Min. BP (mmHg)	Max. BP (mmHg)	Min. HR (t/m)	Max. HR (t/m)	Min. BOS%	Max. BOS%
XYFY-001^~	39	1	1	1	1	1	0	1	17	38	107/70	165/101	56	103	93	99
XYFY-002	37.8	0	0	0	0	0	0	0	15	18	115/71	118/75	70	112	93	99
XYFY-003^~	38.3	1	1	0	0	1	0	1	16	20	120/80	120/80	72	88	94	99
XYFY-004	38.6	1	1	0	0	0	0	0	15	20	115/70	123/86	70	82	93	98
XYFY-005	38.4	0	0	1	0	0	0	1	17	25	132/83	147/87	78	123	95	99
XYFY-006	-	1	1	0	0	0	0	0	15	22	99/75	125/84	63	88	97	100
XYFY-007^!	37.7	0	1	1	1	0	1	1	14	32	90/50	108/64	53	88	93	100
XYFY-008	39.1	0	1	1	1	0	0	1	16	28	120/70	130/80	84	106	95	99
XYFY-009!	38.8	1	0	1	1	0	1	1	14	29	115/82	161/101	67	106	93	99
XYFY-010*!	37.5	0	0	1	0	0	1	0	15	18	134/96	134/96	62	90	96	99
XYFY-011	38.6	1	1	1	0	0	0	0	22	25	112/65	125/l93	78	104	93	99
XYFY-012	-	1	1	0	0	0	0	0	14	17	106/68	106/68	72	86	97	99
XYFY-013	38.8	0	1	1	1	0	0	0	14	28	107/68	139/63	53	98	91	99
XYFY-014!	38.4	1	0	0	0	0	1	0	16	17	130/104	125/90	70	90	96	99
XYFY-015	-	1	1	0	0	0	0	1	16	18	120/80	129/88	74	84	97	99
XYFY-016	39.2	1	0	1	0	0	0	1	16	22	105/56	123/74	76	100	95	100
XYFY-017	-	1	0	1	0	0	0	1	20	25	100/74	110/80	66	92	98	99
XYFY-018	-	1	0	0	0	0	0	0	16	18	120/70	123/76	67	85	97	99

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