

Supplementary Table 1 The list of seven designated tertiary hospitals in Hubei Province

	Hospital Name	Relationships with Wuhan
1	the First Hospital of Jingzhou, Clinical Medical College, Yangtze University, Jingzhou, Hubei, China	Out of Wuhan
2	Hubei No.3 People's Hospital of Jiangnan University, Wuhan, Hubei, China.	In Wuhan
3	the Fifth Hospital in Wuhan, Wuhan, Hubei, China	In Wuhan
4	Guanggu Area of Tongji Hospital Affiliated Huazhong University of Science and Technology, Ningbo aid Hubei Medical Team	In Wuhan
5	People's Hospital of Nanzhang County, Xiangyang, Hubei, China.	Out of Wuhan
6	People's Hospital of Jiayu County, Jiayu, Hubei, China.	Out of Wuhan

Supplementary Table 2 Baseline characteristics of diabetic survivors and non-survivors with coronavirus disease 2019

	Total (n = 191)	Survivors (n = 165)	Non-survivors (n = 26)	P value
Demographics				
Male	108 (56.5)	91 (55.2)	17 (65.4)	0.328
Age, years	62.7 ± 11.0	62.5 ± 11.1	64.1 ± 10.8	0.493
18-49	23 (12.0)	21 (12.7)	2 (7.7)	0.537
50-64	76 (39.8)	67 (40.6)	9 (34.6)	
≥ 65	92 (48.2)	77 (46.7)	15 (57.7)	
Wuhan exposure	181 (95.3)	156 (95.1)	25 (96.2)	1.000
Current smoking	14 (7.4)	10 (6.2)	4 (15.4)	0.236
Onset of symptom, d	10.0 (6.0,13.0)	10.0 (6.0,14.0)	8.0 (5.0,10.0)	0.144
Symptoms				
Fever	132 (69.1)	110 (66.7)	22 (84.6)	0.066
Dyspnea	43 (22.5)	37 (22.4)	6 (23.1)	0.941
Cough	117 (61.3)	100 (60.6)	17 (65.4)	0.642
Sputum production	25 (13.1)	18 (10.9)	7 (26.9)	0.053
Hemoptysis				
Fatigue	56 (29.3)	51 (30.9)	5 (19.2)	0.224
Headache	3 (1.6)	2 (1.2)	1 (3.8)	0.357
Nausea or vomiting	5 (2.6)	5 (3.0)	0 (0.0)	1.000
Diarrhea	15 (7.9)	12 (7.3)	3 (11.5)	0.719
Comorbidity				
Hypertension	106 (55.5)	89 (53.9)	17 (65.4)	0.275
Coronary heart disease	23 (12.0)	20 (12.1)	3 (11.5)	1.000
CVD	10 (5.2)	8 (4.8)	2 (7.7)	0.895
CKD	6 (3.0)	5 (3.0)	1 (3.8)	0.590
COPD	4 (2.1)	3 (1.8)	1 (3.8)	0.446
Admission vital				

signs

Temperature, °C	36.7 (36.4,37.3)	36.6 (36.4,37.3)	37.0 (36.5,38.0)	0.126
≥ 39	5 (2.6)	4 (2.4)	1 (3.8)	0.523
Pulse ≥ 100 beats per min	37 (19.4)	30 (18.2)	7 (26.9)	0.295
Blood oxygen saturation < 93%	31 (19.4)	15 (10.9)	16 (69.6)	< 0.001
Respiratory rate > 24 breaths/minute	15 (7.9)	8 (4.8)	7 (26.9)	< 0.001
Mean systolic blood pressure, mmHg	128 (120,140)	128 (120,139)	134 (120,145)	0.125
Mean systolic blood pressure, mmHg	80.0 (74.0,85.0)	80.0 (74.0,84.5)	80.00 (74.3,87.5)	0.595

Radiological**findings**

Ground glass opacity	29 (15.2)	22 (13.3)	7 (26.9)	0.133
Bilateral patchy shadowing	126 (66.0)	113 (68.5)	13 (50.0)	0.064
Bilateral lesions	157 (82.2)	137 (83.0)	20 (76.9)	0.631

Data are expressed as *n* (%), mean ± SD or median (IQR). *P* values were calculated by *t* Test, Mann-Whitney *U* test, χ^2 test, Fisher's exact test as appropriate. *P*, comparing groups of diabetic survivors and non-survivors. CVD: Cerebrovascular diseases; CKD: Chronic kidney disease; COPD: Chronic obstructive pulmonary disease.

Supplementary Table 3 Baseline characteristics of diabetic coronavirus disease 2019 patients using metformin and matched non-metformin, acarbose and matched non-acarbose

	Metformin (<i>n</i> =50)	Matched non-Metfor min (<i>n</i> =50)	Acarbose (<i>n</i> =46)	Matched non-acarbos e (<i>n</i> =46)
Demographics				
Male	27 (54.0)	27 (54.0)	29 (63.0)	29 (63.0)
Age, years	61.0 (56.0,69.0)	61. 0(57.8,68.3)	62.3 ± 9.6	61.9 ± 9.4
18-49	20 (10.0)	4 (8.0)	6 (13.0)	6 (13.0)
50-64	25 (50.0)	26 (52.0)	20 (43.5)	18 (39.1)
≥ 65	20 (40.0)	20 (40.0)	20 (43.5)	22 (47.8)
Wuhan exposure	50 (100.0)	45 (90.0)	46 (100)	45 (97.8)
Current smoking	6 (12.0)	1 (2.0)	3 (6.7)	7 (15.6)
Symptoms onset, d	10.0 (6.0,15.0)	10.0 (5.0,11.0)	12.0 (7.0,18.0)	9.0 (6.0, 11.0)^e
Symptoms				
Fever	27(54.0)	39(78.0)^a	26 (56.5)	33 (71.7)
Dyspnea	11 (22.0)	12 (24.0)	10 (21.7)	11 (23.9)
Cough	34 (68.0)	29 (58.0)	27 (58.7)	27 (58.7)
Sputum production	10 (20.0)	6 (12.0)	5 (10.9)	7 (15.2)
Hemoptysis	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Fatigue	19 (38.0)	9 (18.0)^a	11 (23.9)	21 (45.7)^e
Headache	0 (0.0)	3 (6.0)	0 (0.0)	2 (4.3)
Nausea or vomiting	2 (4.0)	2 (4.0)	2 (4.3)	2 (4.3)
Diarrhea	6 (12.0)	5 (10.0)	4 (8.7)	6 (13.0)
Comorbidity				
Coronary heart disease	7 (14.0)	5 (10.0)	6 (13.0)	7 (15.2)
CVD	2 (4.0)	3 (6.0)	2 (4.3)	2 (4.3)

CKD	1 (2.0)	1 (2.0)	1 (2.2)	0 (0.0)
COPD	0 (0.0)	2 (4.0)	0 (0.0)	0 (0.0)
Admission vital signs				
Temperature, °C	36.8 (36.5-37.3)	36.6 (36.3-38.0)	36.6 (36.4-37.3)	36.8 (36.5-37.2)
≥ 39.0	1 (2.0)	3 (6.0)	1 (2.2)	0 (0.0)
Pulse ≥ 100 beats per min	9 (18.0)	7 (14.0)	11 (23.9)	12 (26.1)
Blood oxygen saturation	8 (20.5)	11 (22.9)	5 (12.2)	10 (27.0)
< 93%				
Respiratory rate	1 (2.0)	5 (10.0)	1 (2.2)	5 (10.9)
> 24 breaths/min				
Mean systolic blood pressure, mmHg	132 (120-147)	128 (120-137)	131.7 ± 17.2	133.5 ± 18.5
Mean systolic blood pressure, mmHg	80.0 (76.5,82.8)	80.0 (73.8,85.0)	80.0 (77.0,80.0)	80.0 (77.3,90.0)
Radiological findings				
Ground glass opacity	8 (16.0)	6 (12.0)	5 (10.9)	9 (19.6)
Bilateral patchy shadowing	39 (78.0)	31 (62.0)	31 (67.4)	30 (65.2)
Bilateral lesions	44 (88.0)	39 (78.0)	39 (84.8)	42 (91.3)

Data are expressed as *n* (%), mean ± *SD* or median (IQR). *P* values were calculated by *t* Test, Mann-Whitney *U* test, χ^2 test, Fisher's exact test as appropriate. Comparison of metformin users and non-users: ^a*P* < 0.05, ^b*P* < 0.01, ^c*P* < 0.001. Comparison of acarbose users and non-users:: ^e*P* < 0.05, ^f*P* < 0.01, ^g*P* < 0.05. CKD: Chronic kidney disease; COPD: Chronic obstructive pulmonary disease; CVD: Cerebrovascular disease.