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## **Supplemental information**

### **Angiotensin-converting enzyme 2 SNPs as the common genetic loci and optimal early identification genetic markers for COVID-19**

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**Running Title:** ACE2 SNPs as the optimal early identification genetic markers for COVID-19

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## 1. Supplemental Figures

### 1.1. Supplementary Fig. S1. The blast analysis of ACE2 SNPs

#### rs6632677: 10321C>G

Homo sapiens. Seq  
Myotis brandtii (Brandt's bat).seq  
Consensus

TGCATTCAAGGTGCTGGCTAGAGCTATGGTCTCT 4232  
CTGACTGGATGCCAGGTAACCAAGCAGCTACACCT 5456  
a t a g g a g c c t

#### rs2048683: 16694A>T

Homo sapiens. Seq  
Myotis brandtii (Brandt's bat).seq  
Consensus

CCTAAATTAGATGAAATTACCACTTCAATAAGATA 10598  
AGGAGTCAACAACTTTTATATAAAGGTAAAGATA 11024  
a a a t t a t a a g a t a

#### rs4646142: 22129C>T

Homo sapiens. Seq  
Myotis brandtii (Brandt's bat).seq  
Consensus

CCATGGACCCATAAAAGCAACTACACAATCGAGA 16024  
TTAGGAGAAAATAAAATCTTCCAAAAACCTTGGA 18131  
a g a a t a a a c c a a g a

#### rs4240157: 38229G>C

Homo sapiens. Seq  
Myotis brandtii (Brandt's bat).seq  
Consensus

GTAAATAGTGTTTCAGGGGGTTTGATTCTGTAATGT 32256  
GACTATTGCCITTCAGAGGGTTTGAACATTCTAAGG 32997  
g a t g t t c a g g g g t t t g a t a g

#### rs2074192: 42403G>A

Homo sapiens. Seq  
Myotis brandtii (Brandt's bat).seq  
Consensus

CACAAATGAATAAATGCCAACCATTATACATTT 36062  
AACTCTGGTCGAACTCTTGTTGAGGGGACAATT 37469  
a c g a a t c a c a t t

## 2. Supplemental Tables

### 2.1. Supplementary Table S1. Frequency of signs and symptoms according to COVID-19 phenotypes.

Signs and symptoms	Mild (n =42)	Common (n =184)	Severe (n =7)	Critical (n =13)	Total (n =246)
Fever	27 (64.3%)	155 (84.2%)	7 (100%)	8 (61.5%)	197 (80.1%)
Dry cough	20 (47.6%)	83 (45.1%)	3 (42.9%)	8 (61.5%)	114 (46.3%)
Expectoration	6 (14.3%)	30 (16.3%)	2 (28.6%)	6 (46.2%)	44 (17.9%)
Dyspnea	0 (0)	7 (3.8%)	1 (14.3%)	3 (23.1%)	11 (4.5%)
Headache	2 (4.8%)	11 (6%)	0 (0)	0 (0)	13 (5.3%)
Dizziness	1 (2.4%)	5 (2.7%)	0 (0)	1 (7.7%)	7 (2.8 %)
Fatigue	4 (9.5%)	7 (3.8%)	0 (0)	4 (30.8%)	15 (6.1%)
Sore/Itchy/dry throat	3 (7.1%)	12 (6.5%)	0 (0)	4 (30.8%)	19 (7.7%)
Nasal congestion	2 (4.8%)	7 (3.8%)	0 (0)	1 (7.7%)	10 (4.1%)
Runny nose	1 (2.4%)	7 (3.8%)	0 (0)	1 (7.7%)	9 (3.7%)
Diarrhea	1 (2.4%)	3 (1.6%)	0 (0)	0 (0)	4 (1.6%)
Myalgia	0 (0)	5 (2.7%)	0 (0)	1 (7.7%)	6 (2.4%)
Chilly	0 (0)	8 (4.3%)	0 (0)	1 (7.7%)	9 (3.7%)
Others symptoms	2 (4.8%)	23 (12.5%)	0 (0)	2 (15.4%)	27 (11.0%)
<b>Initial therapy</b>					
Oxygen therapy	2 (4.8%)	56 (30.4%)	7 (100%)	9 (69.2%)	74 (30.1%)
Prezcobix	0 (0)	14 (7.6%)	0 (0)	1 (7.7%)	15 (6.1%)
Arbidol	12 (28.6%)	40 (21.7%)	2 (28.6%)	2 (15.4%)	56 (22.8%)
Interferon	12 (28.6%)	71 (38.6%)	2 (28.6%)	6 (46.2%)	91 (37.0%)
Lopinavir and Ritonavir Tablets	0 (0)	37 (20.1%)	2 (28.6%)	1 (7.7%)	40 (16.3%)
Meropenem	0 (0)	1 (0.5%)	0 (0)	1 (7.7%)	2 (0.8%)
Moxifloxacin	3 (7.1%)	15 (8.1%)	0 (0)	2 (15.4%)	20 (8.1%)
Omeprazole	1 (2.4%)	3 (1.6%)	0 (0)	2 (15.4%)	6 (2.4%)
Vitamin C	0 (0)	15 (8.2%)	1 (14.3%)	1 (7.7%)	17 (6.9%)
Hydroxychloroquine	7 (16.7%)	7 (3.8%)	1 (14.3%)	0 (0)	15 (6.1%)
ShuFengJieDuJiaoNang	3 (7.1%)	10 (5.4%)	1 (14.3%)	0 (0)	14 (5.7%)
Others agents	14 (33.3%)	27 (14.7%)	1 (14.3%)	9 (69.2%)	51 (20.7%)

Signs and symptoms were collected from the electronic medical records for the hospitalized patients.

**2.2. Supplementary Table S2. Five ACE2 SNPs in this study are associated with coexisting diseases in the previous studies.**

<b>Group</b>	<b>rs2048683</b>	<b>rs2074192</b>	<b>rs4240157</b>	<b>rs6632677</b>	<b>rs4646142</b>
Cardiovascular	+	+	+	-	-
hypertension	+	+	+	+	+
Dyslipidemia	+	+	+	+	+
Left ventricular hypertrophy	-	+	+	+	-
diabetes	+	+	+	-	-
Stroke	-	+	-	-	+
Retinopathy	-	+	-	-	-
Number of articles published	3	10	6	4	1

+ represents literature reported, - represents no literature reported